

Lake Mohave Water-Quality Monitoring – Lake Mead National Recreation Area (LAKE)

**Prepared for the Lake Mead
Ecosystem Monitoring Workgroup
Meeting
May 14, 2015**

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U.S. Department of Interior
U.S. Geological Survey (USGS)**



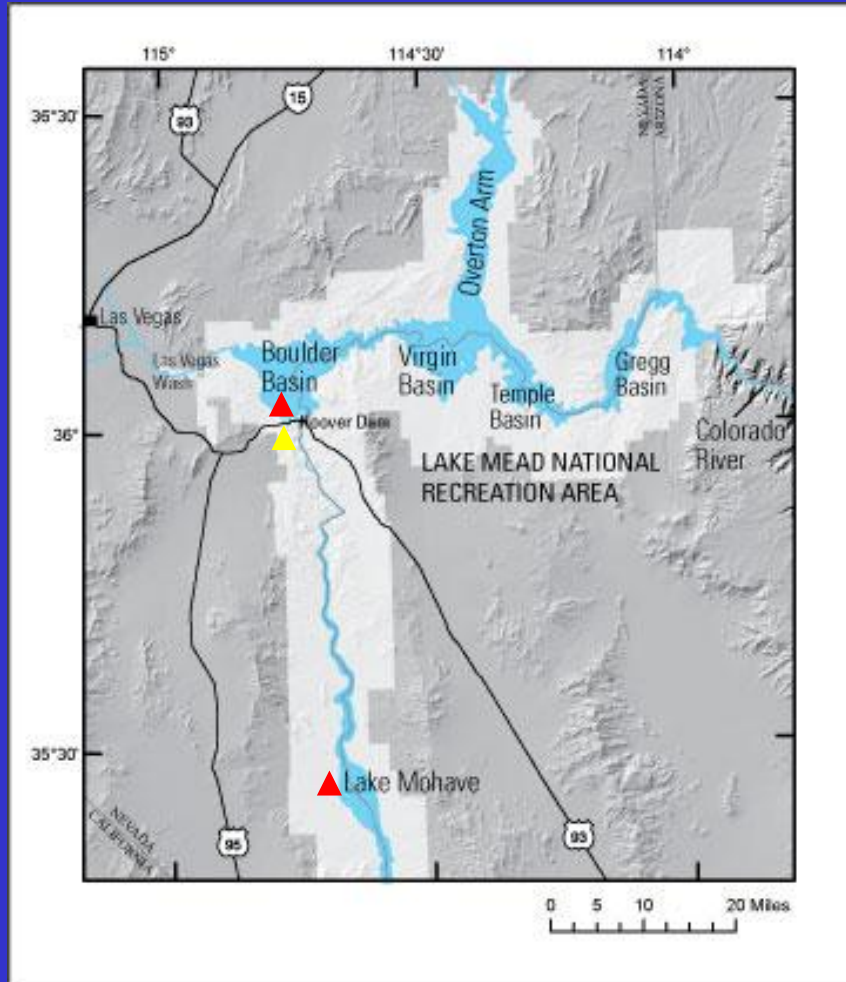
Overview

- Lake Mohave background
- USGS LAKE water-quality monitoring
- Lake Mohave Monitoring Station
- Why collect the data
- Online data availability
- Data graphs for period of record
- Cooperators

Lake Mohave

- Created by the completion of Davis Dam in 1951
- Approximately 67 miles from Hoover Dam to Davis Dam
- Big Bend Water District (maintained and operated by Las Vegas Valley Water District) – created in 1983 to supply water to Laughlin residents and businesses.
- Recreational Activities – fishing, boating and water skiing
- Total storage of 1.8 million acre-ft (Lake Mead = 28.9 Maf)

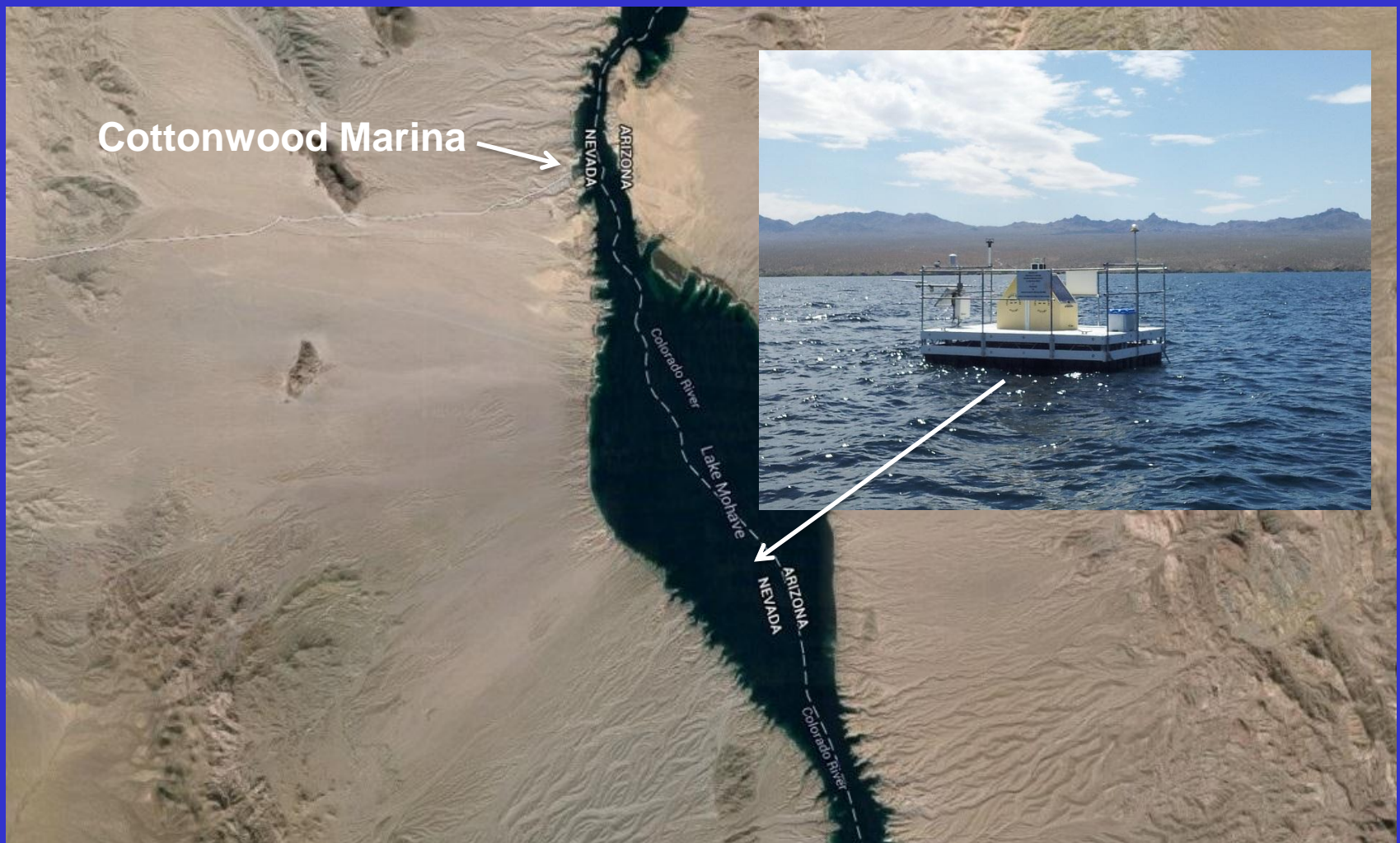
Lake Mead National Recreation Area Water-Quality Monitoring: Active USGS Station Locations



▲ Lake Mead & Mohave
– collected daily

▲ Lower Colorado River
– collected quarterly

Lake Mohave Monitoring Station



Lake Mohave Monitoring Station

Near-continuous depth-dependent water-quality data collected include:

- Water Temperature**
- Specific Conductance**
- Dissolved Oxygen**
- pH**
- Turbidity**

Note: 4 profiles every 6 hours (starting after midnight daily) – every 2.5 meters (starting at 1 meter below surface)

Why Collect the Data?

- **Improve and expand limited existing baseline data for Lake Mohave**
- **Gain a better understanding of potential effects downstream from Lake Mohave**
 - **Water supply for Laughlin, NV; Bull Head City and Lake Havasu City, AZ**
- **Hydrodynamic models – better understand and predict conditions in the lake.**

Water–Quality Monitoring at Lake Mead National Recreation Area, Arizona and Nevada

Near-Real-Time and Quality
Assured Data

Additional Information

Project Bibliography

Lake Mead Water Quality
Home Page

Contact Information

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**Nevada Water Science Center
Home Page**

Lake Mohave

Current Data

Current Profile Data: [Graphs](#) | [Table](#)

Historic Quality-Assured Data

[Water Year 2013](#)

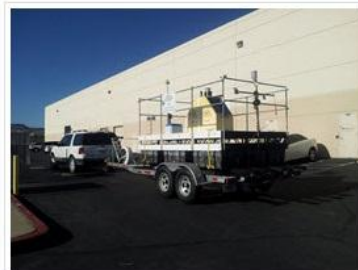
Note: These data should be considered PROVISIONAL and are subject to revision until formal USGS publication.

Data Collection

Location: Latitude 35° 25' 50"; Longitude 114° 39' 07"

Current profile frequency: 6 hours

Collection began: May 2013



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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

URL: <http://nevada.usgs.gov/water/et/index.htm>

Page Contact Information: [Nevada Water Science Center Web Team](#)

Page Last Modified: September 5, 2014

http://nevada.usgs.gov/water/lmqw/data_mohave.htm

Near-Real-Time and Quality Assured Data

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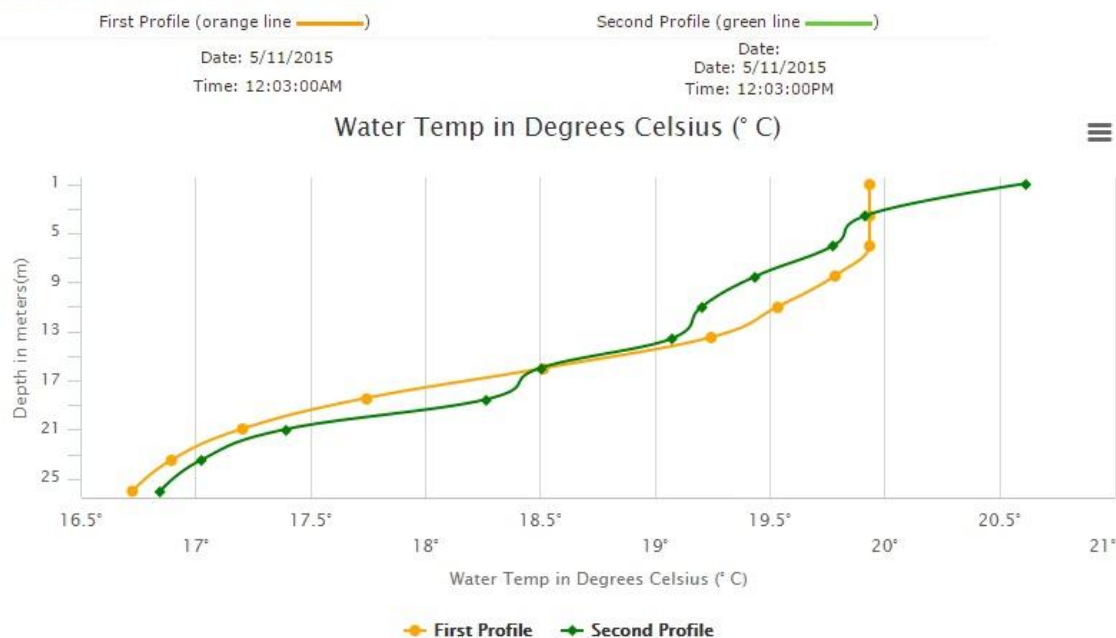
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Lake Mohave

Profile Plots

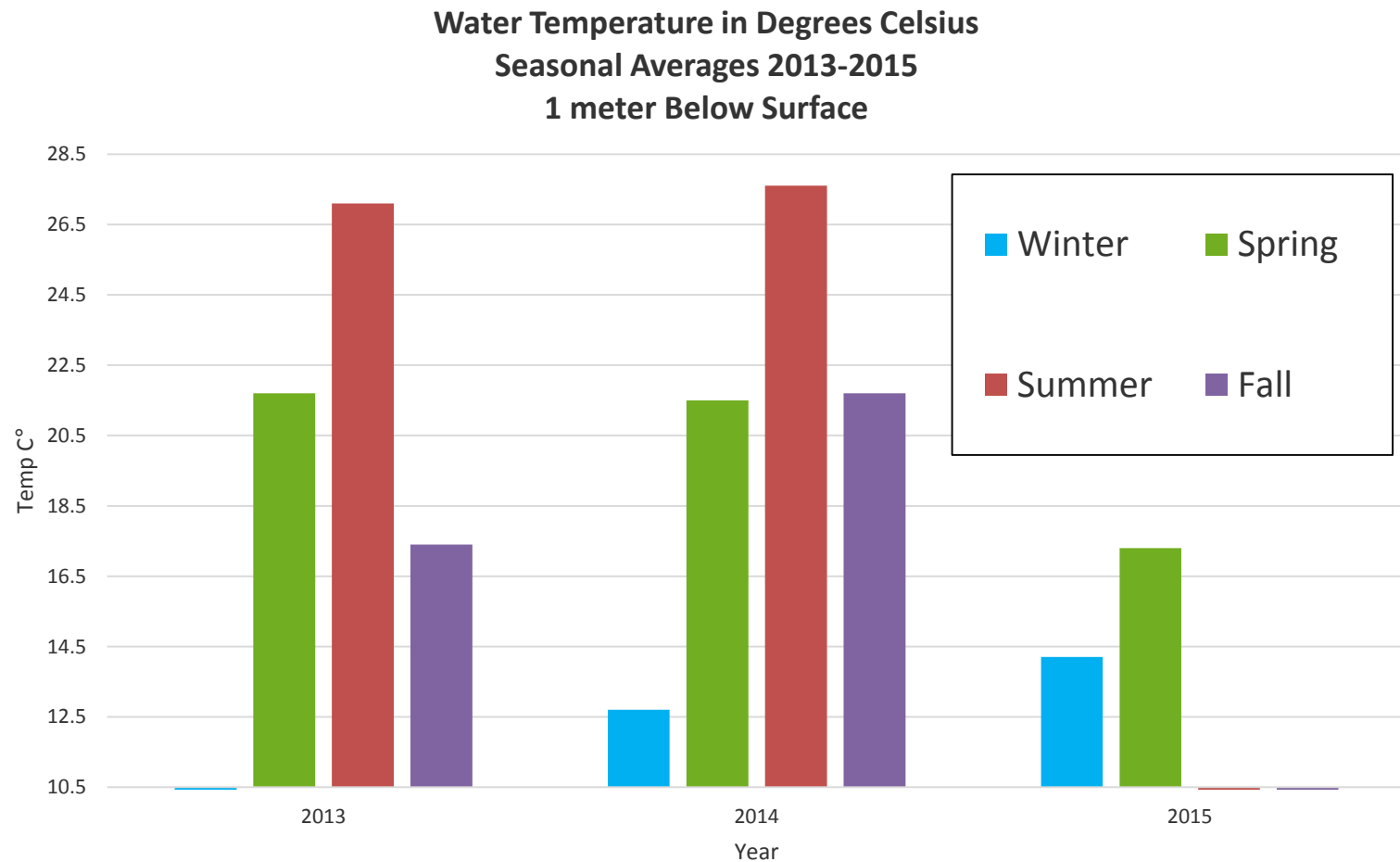
[Data Table](#)

[All data are provisional and subject to revision.]



http://nevada.usgs.gov/water/lmqw/Mohave_profileplots.cfm

Lake Mohave Monitoring Station



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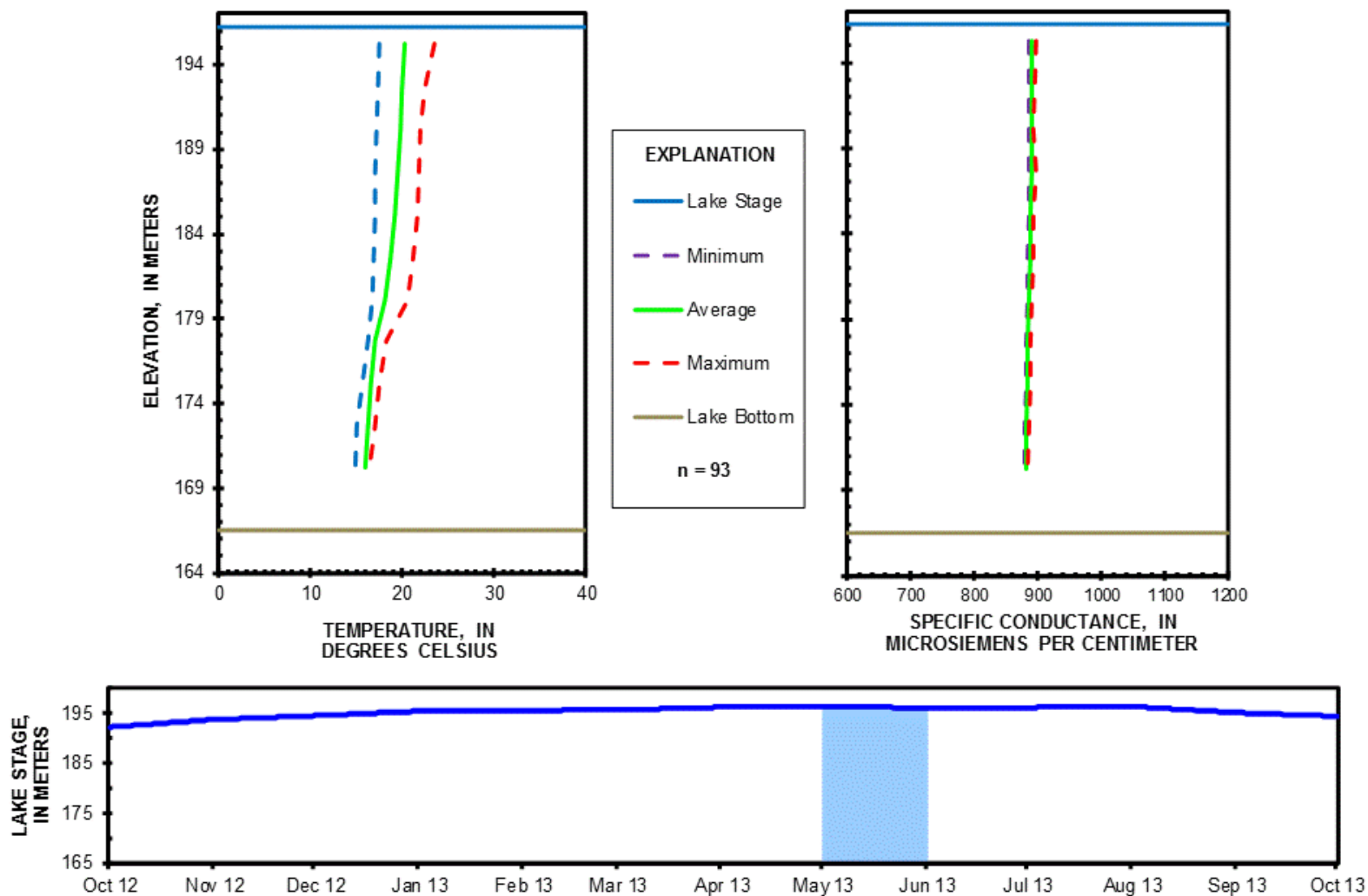
Lake Mohave Monitoring Station

Monthly Average Water Temperature and Specific Conductance by Depth-Dependent Profiles

Note — Lake Stage and Bottom are Approximations

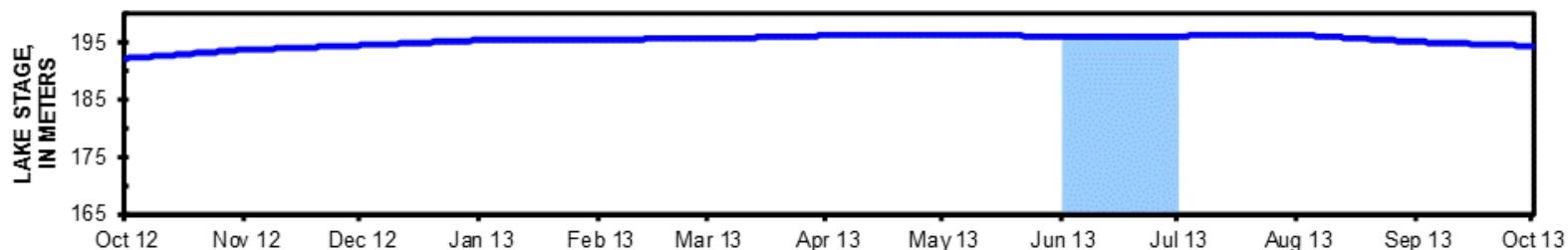
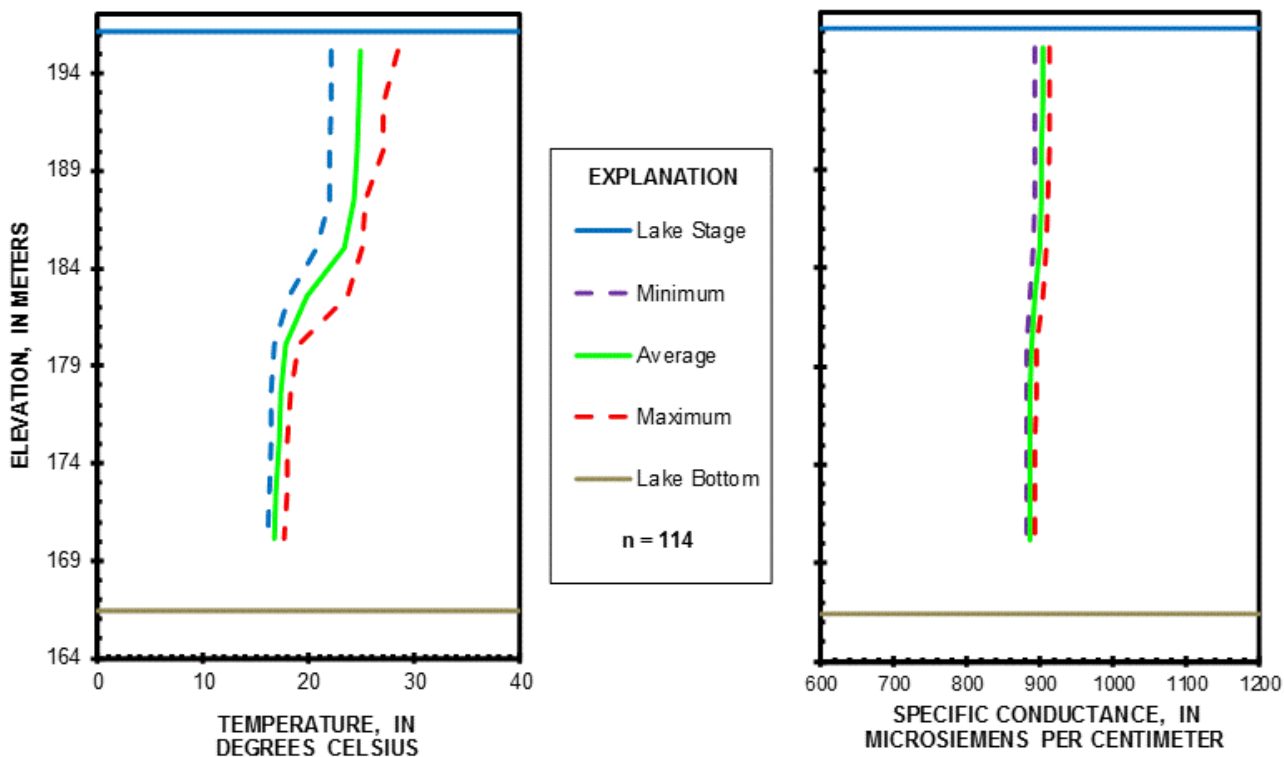
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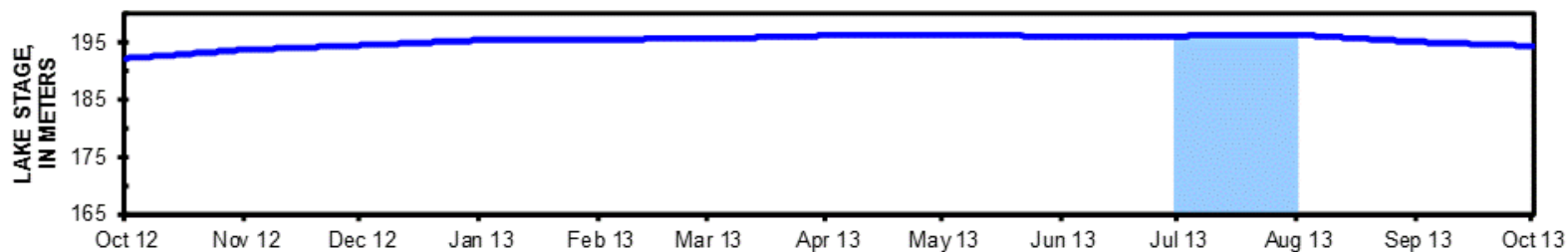
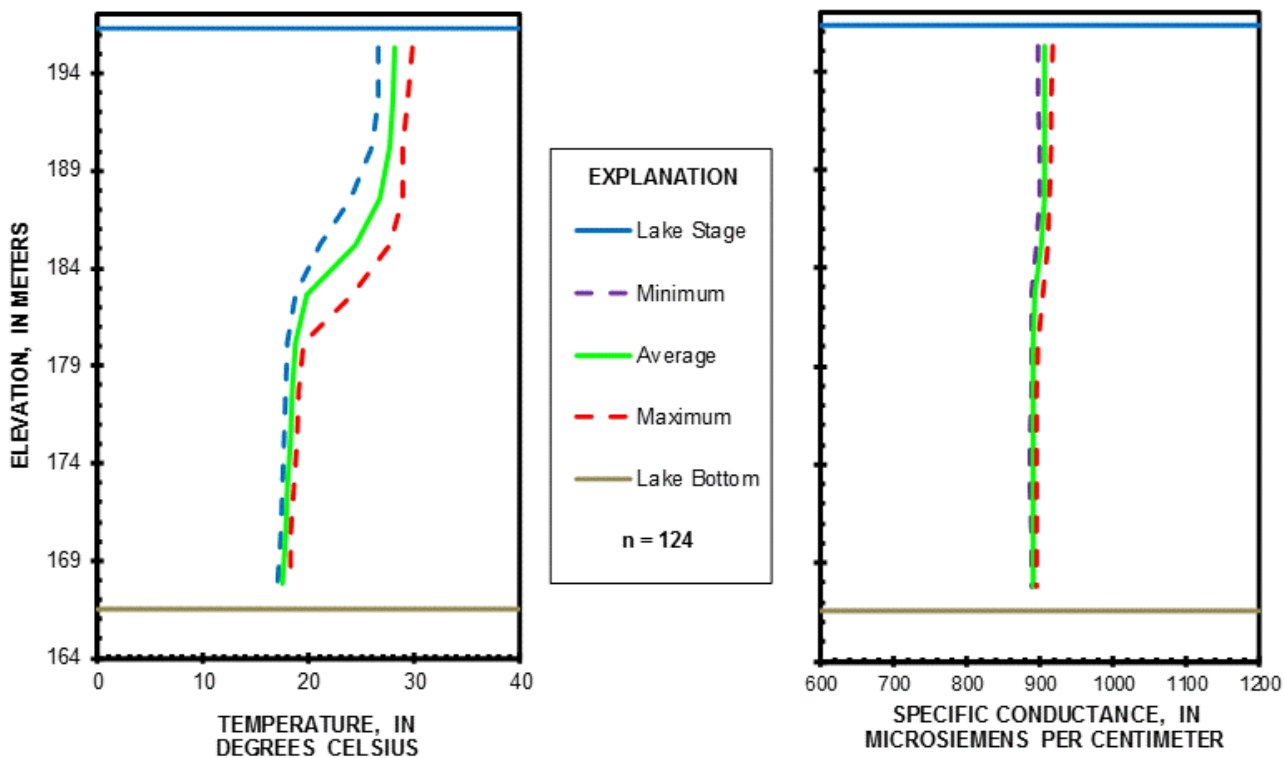
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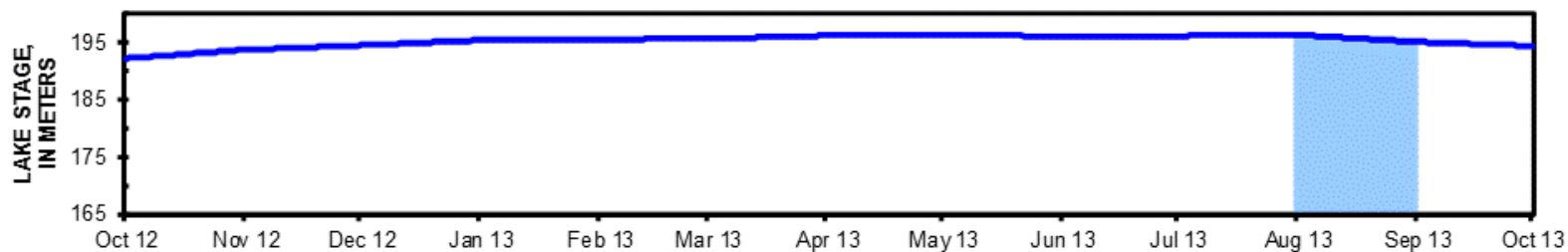
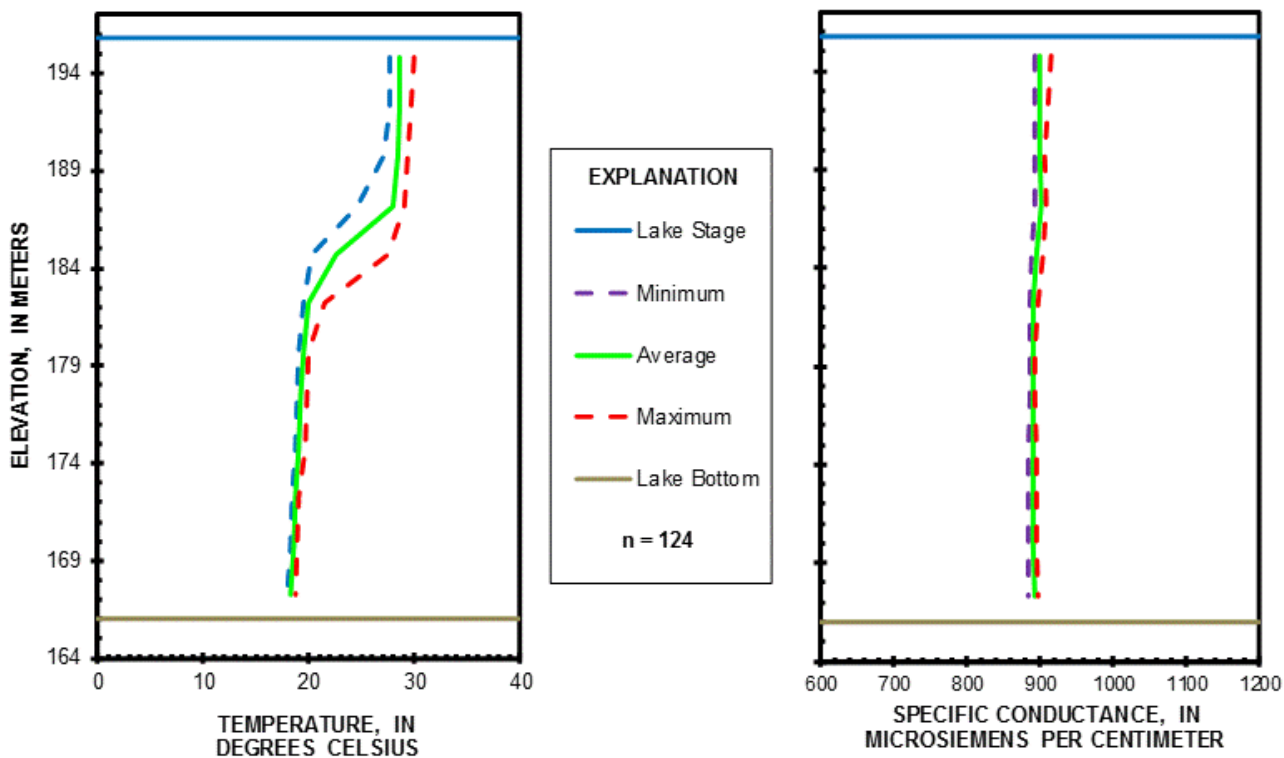
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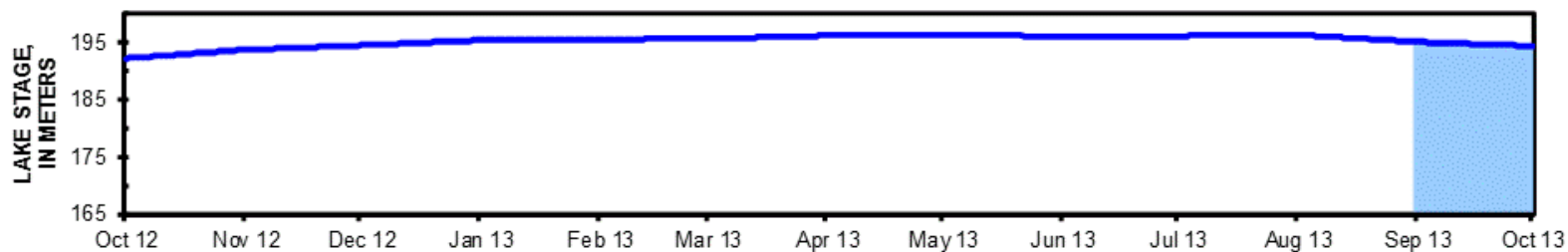
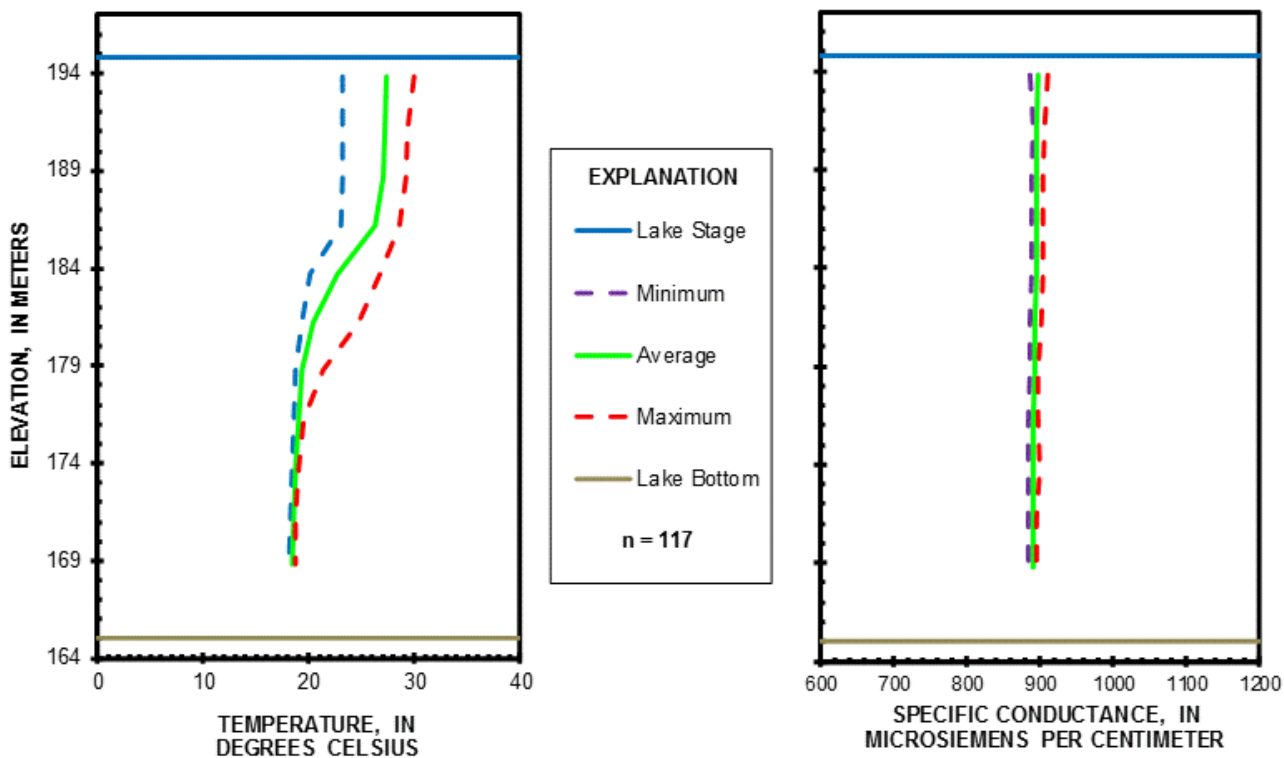
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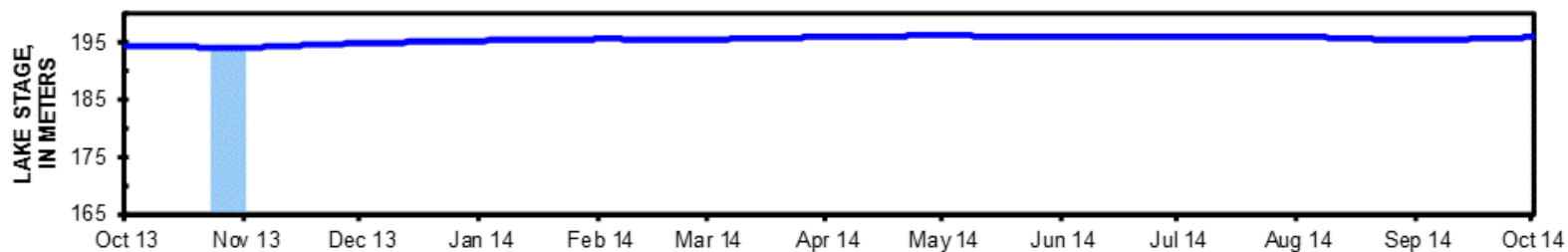
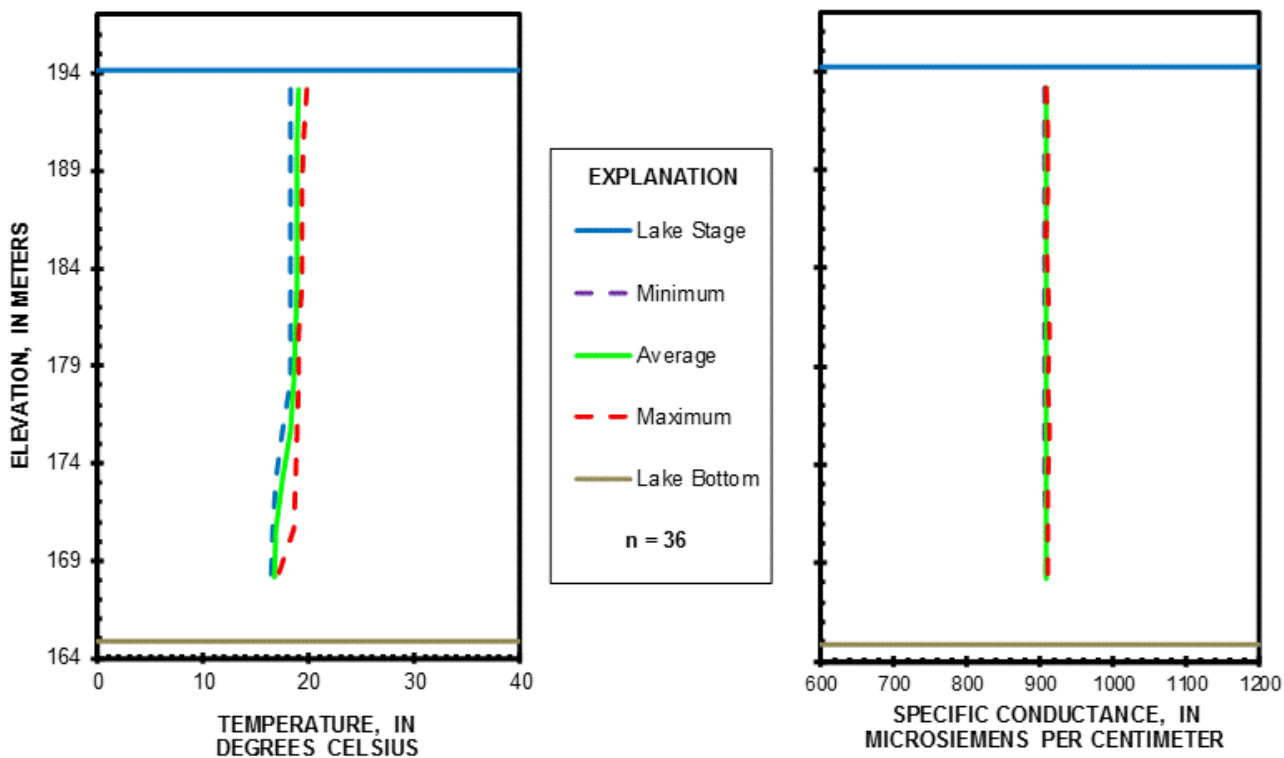
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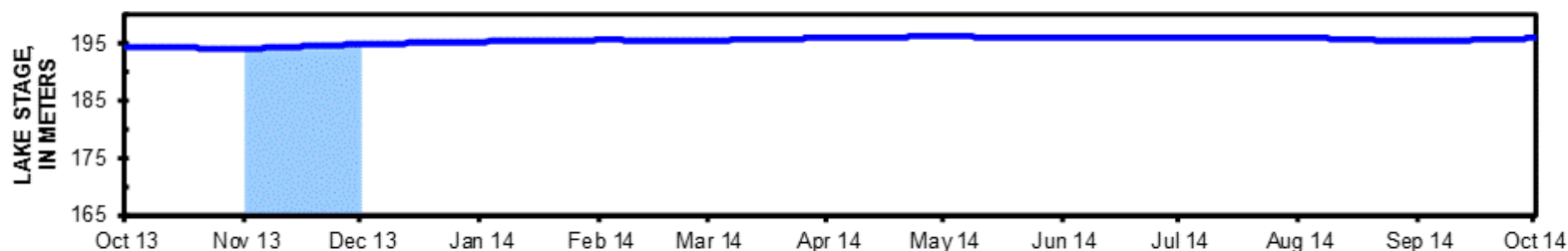
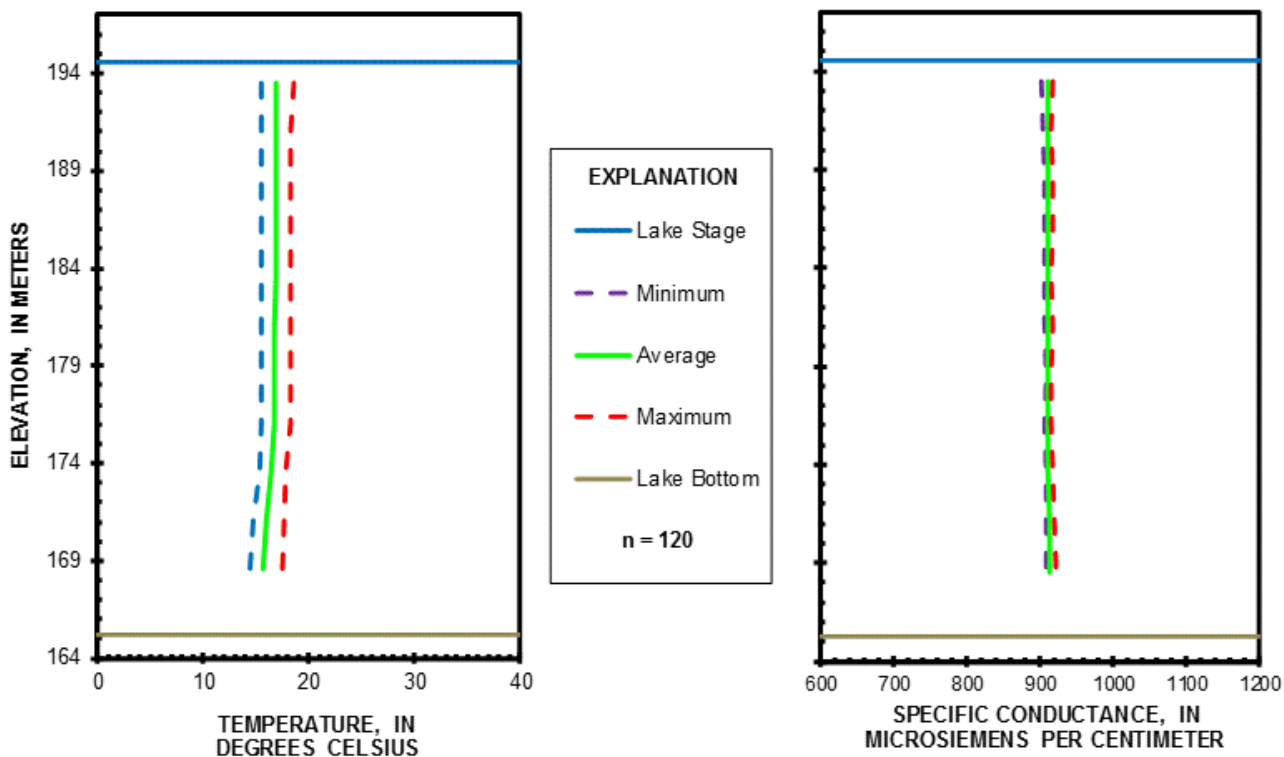
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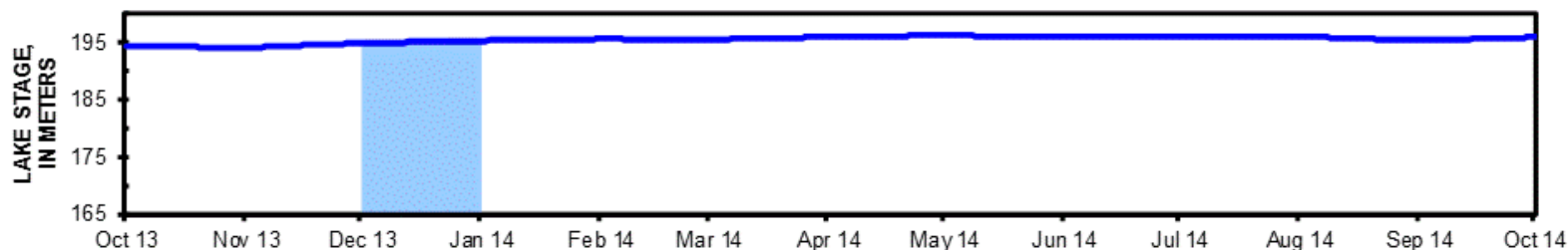
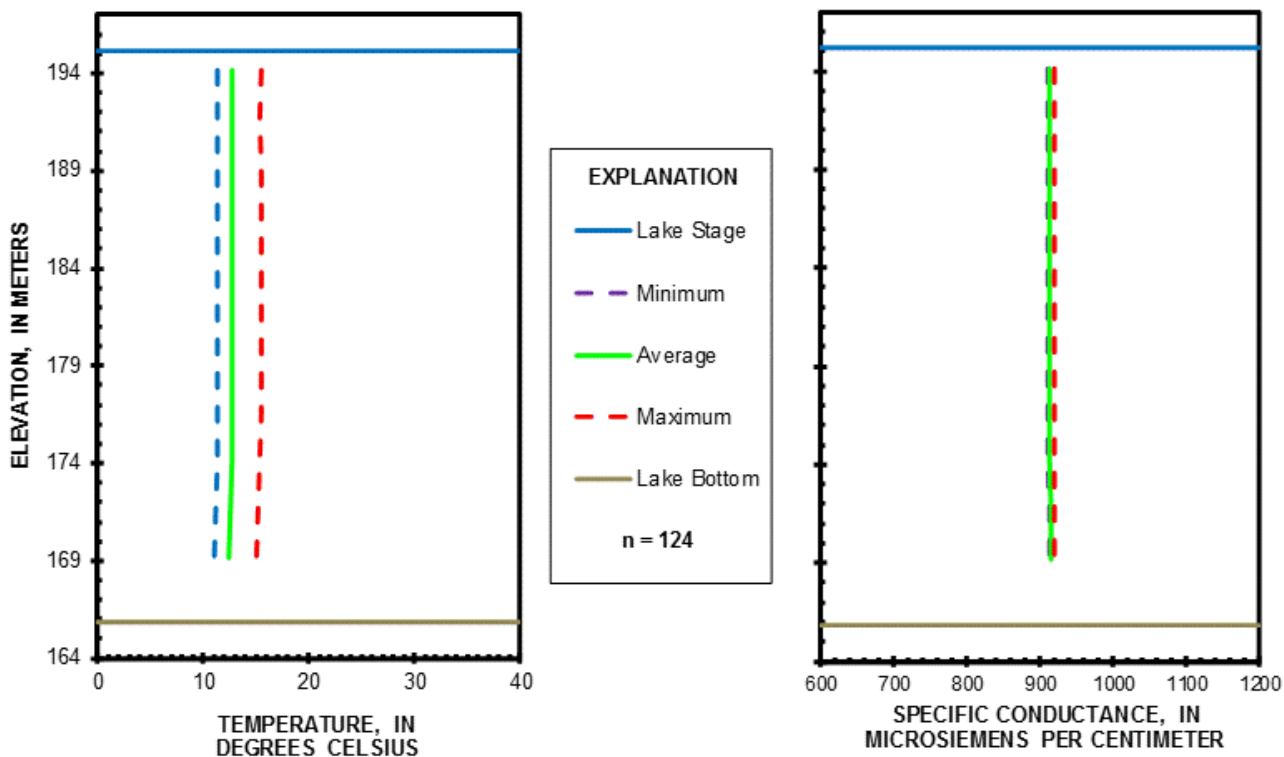
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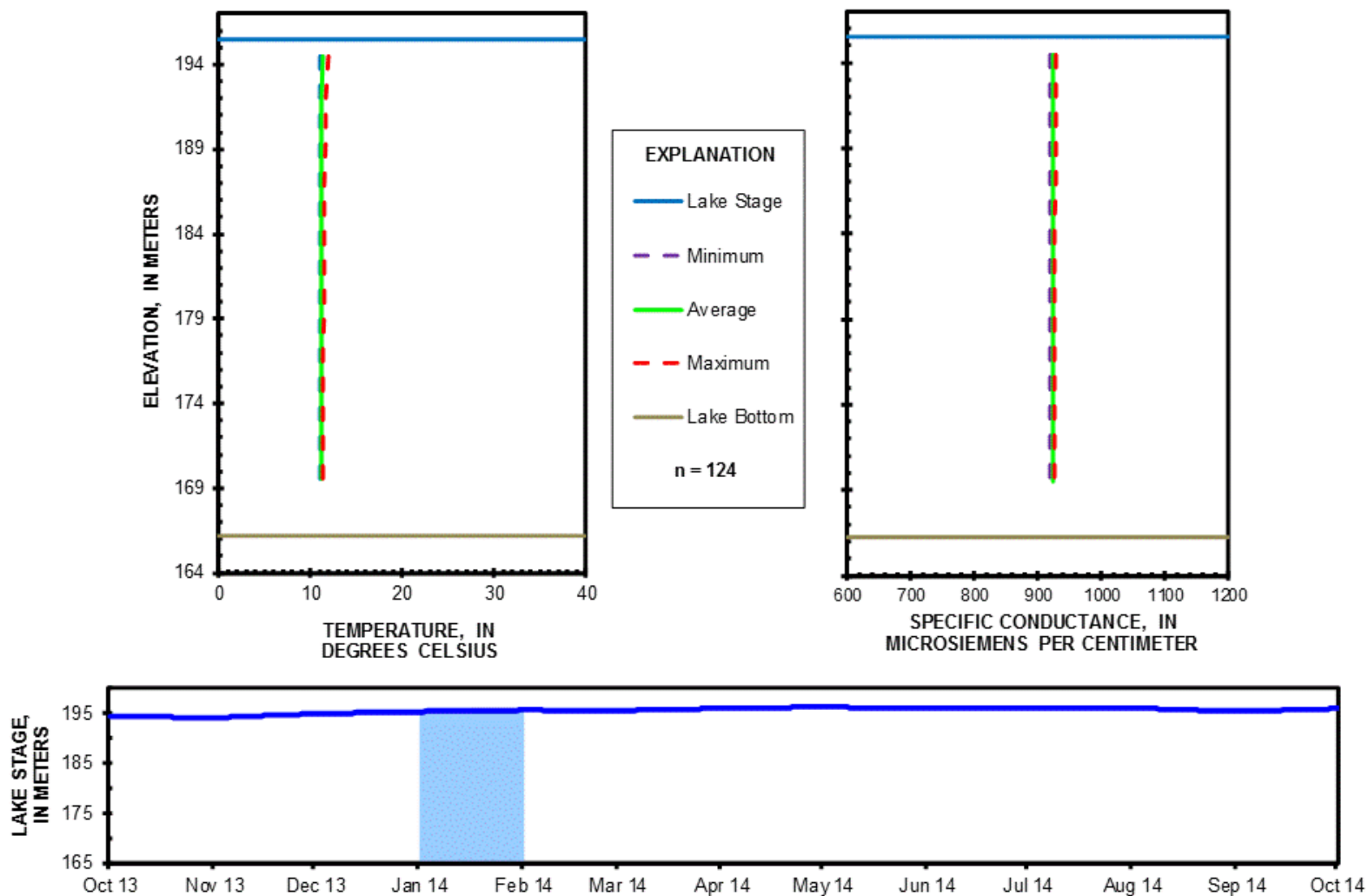
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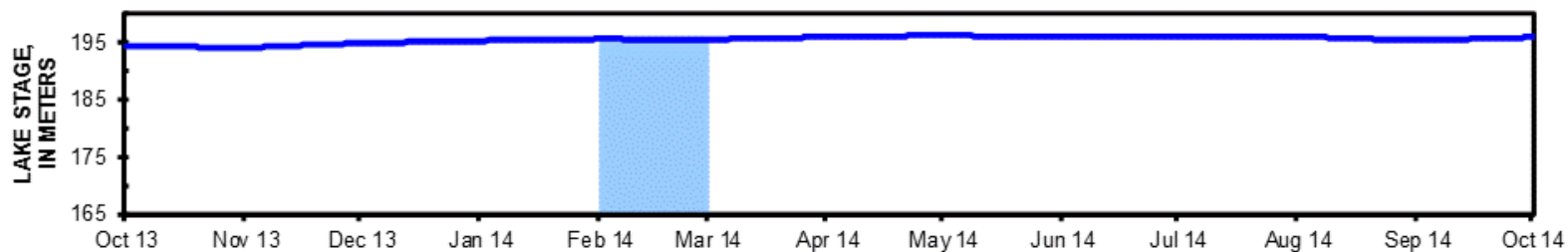
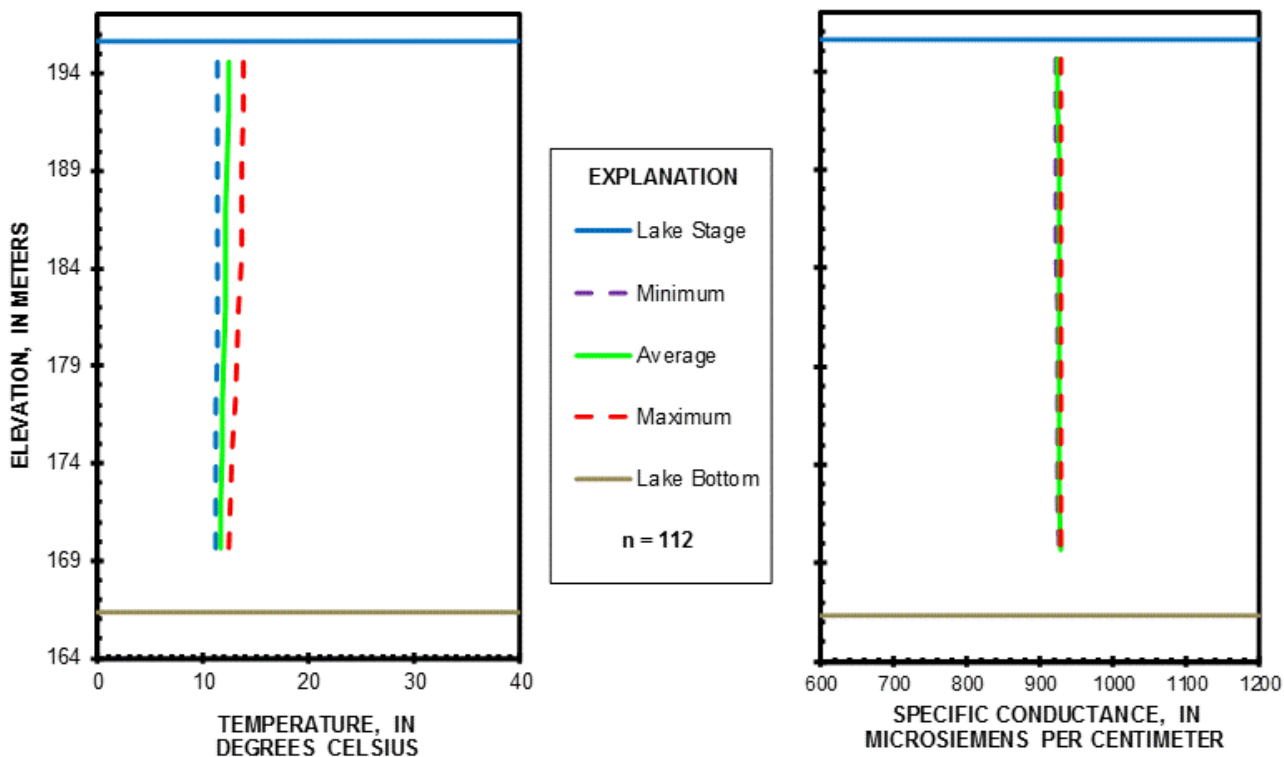
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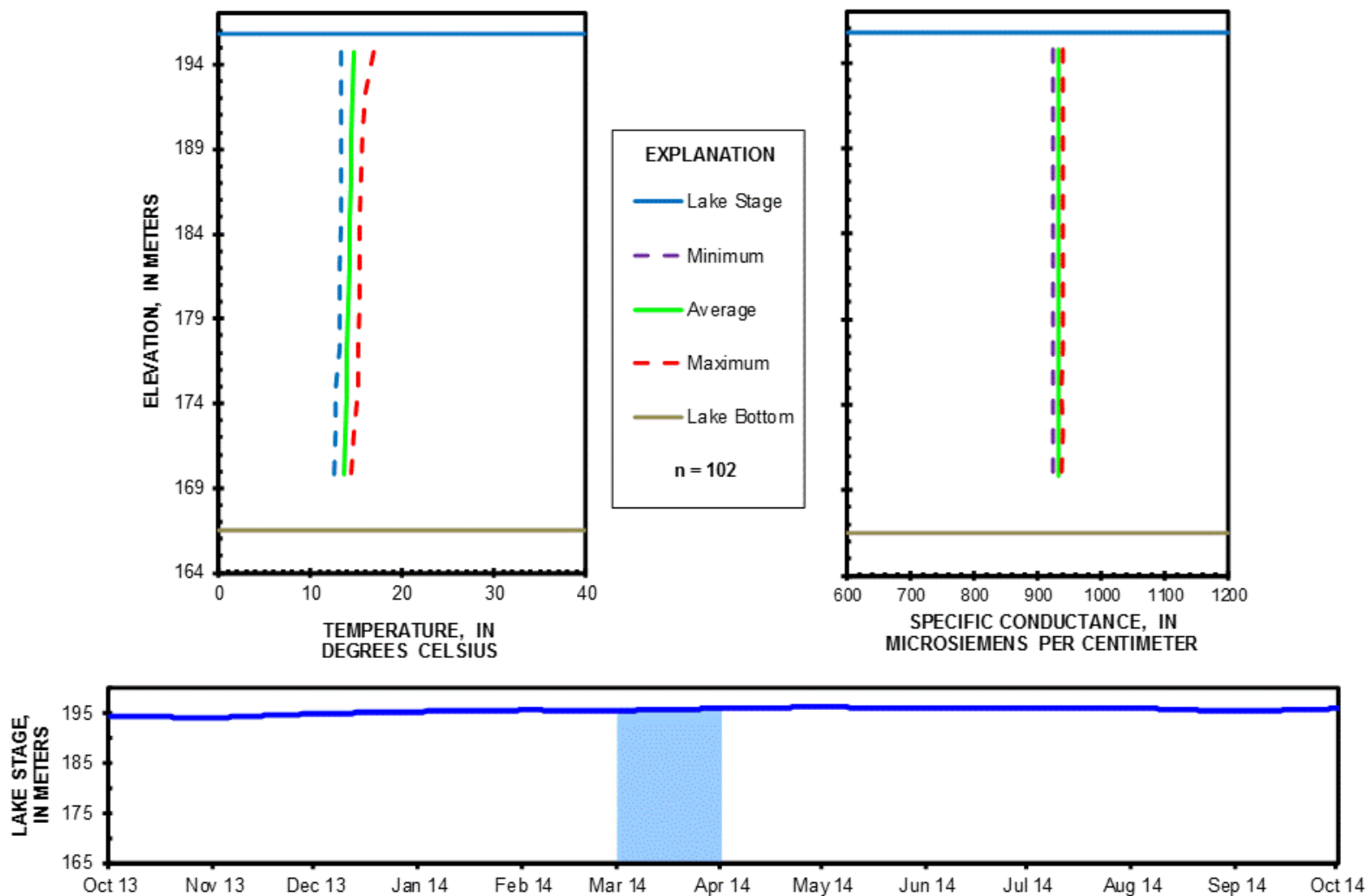
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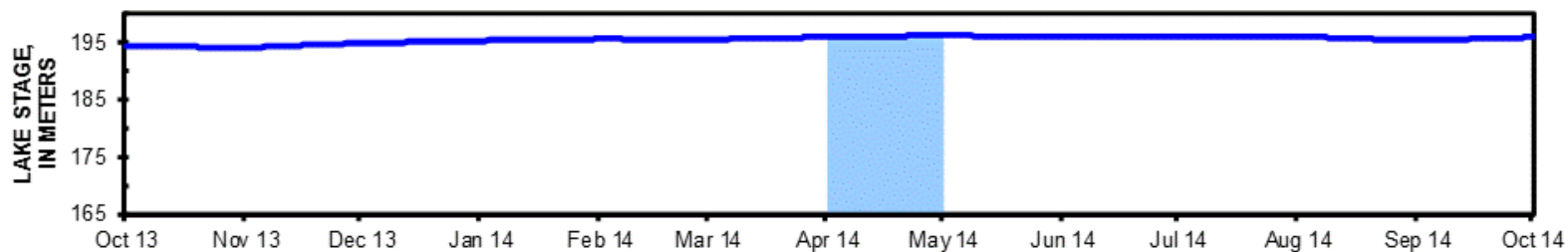
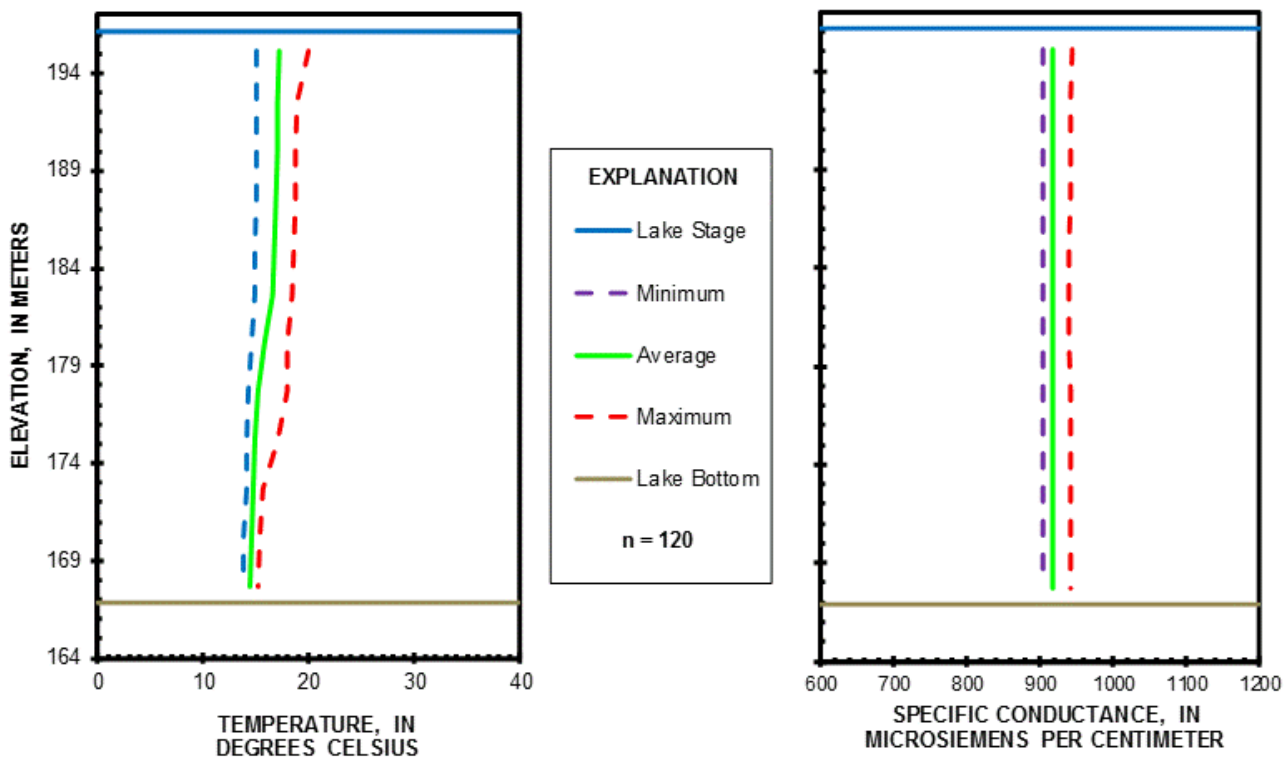
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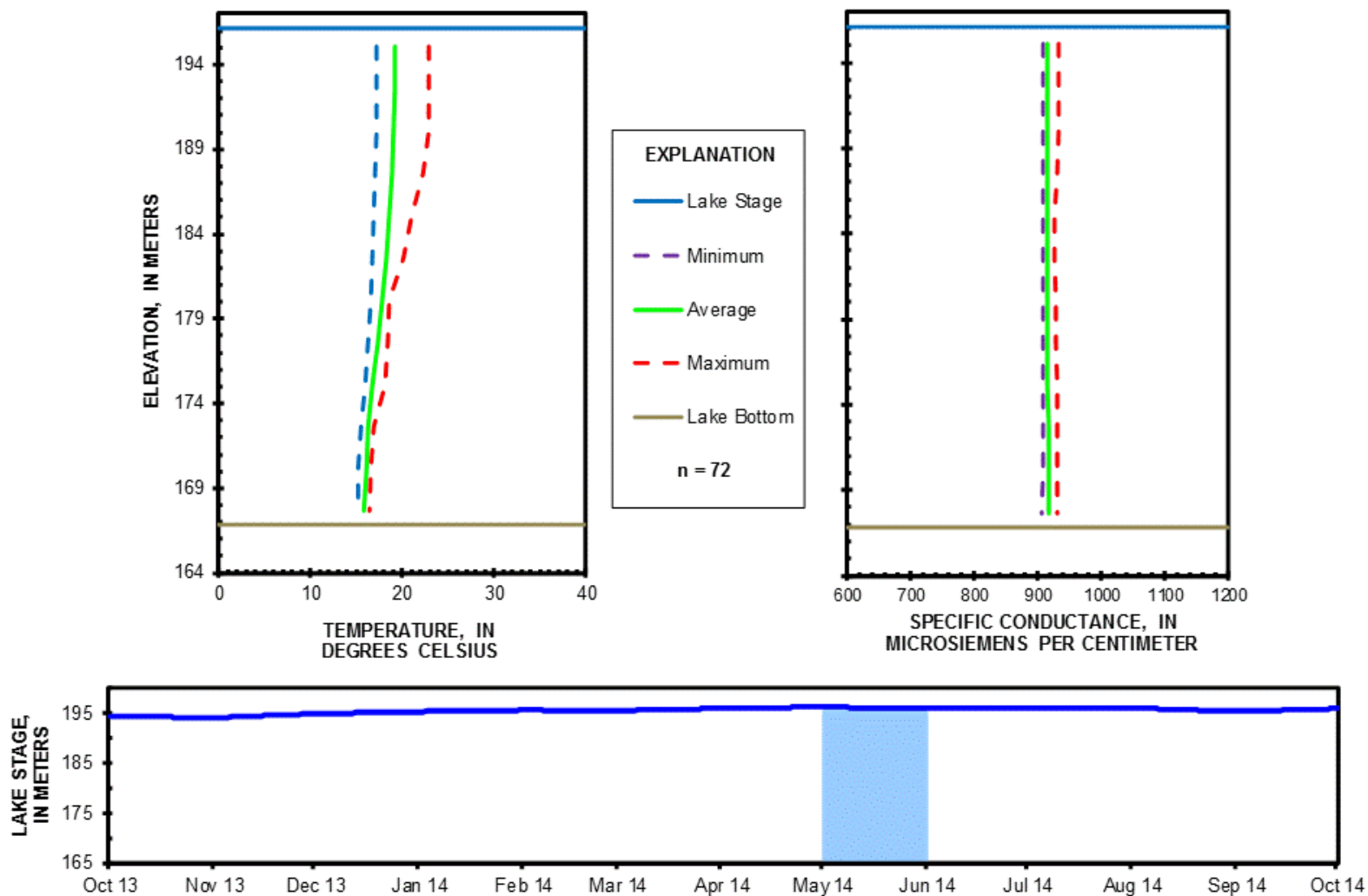
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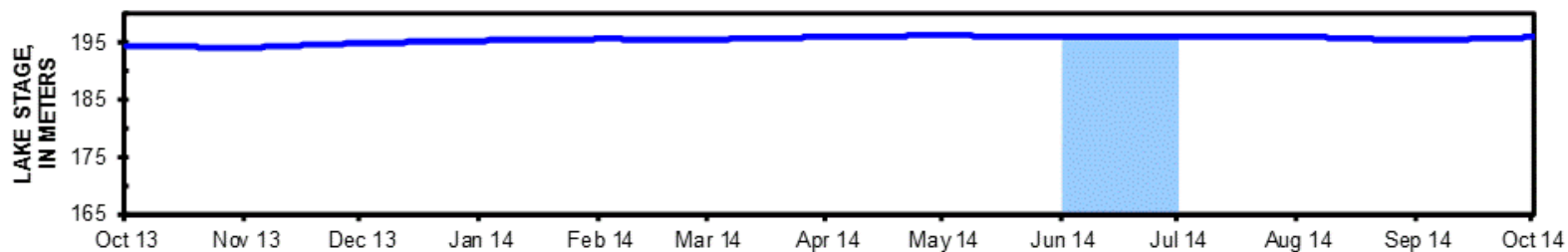
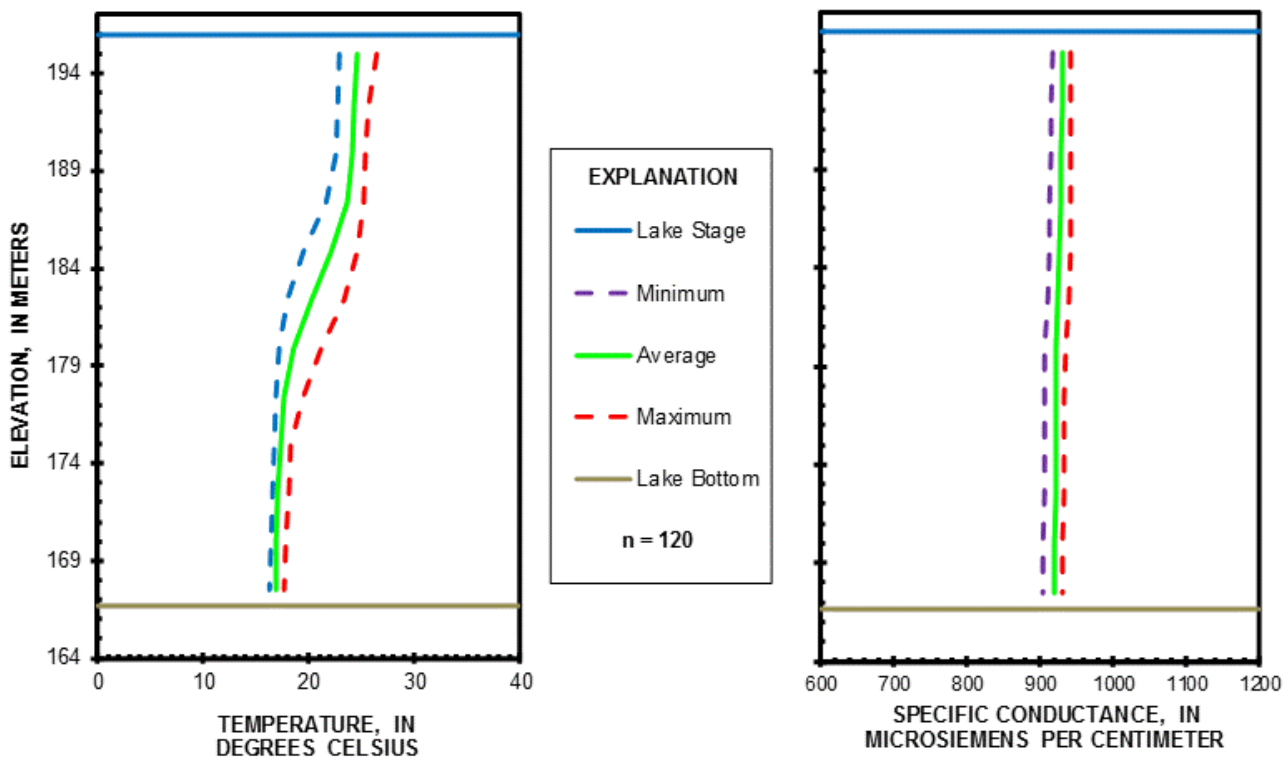
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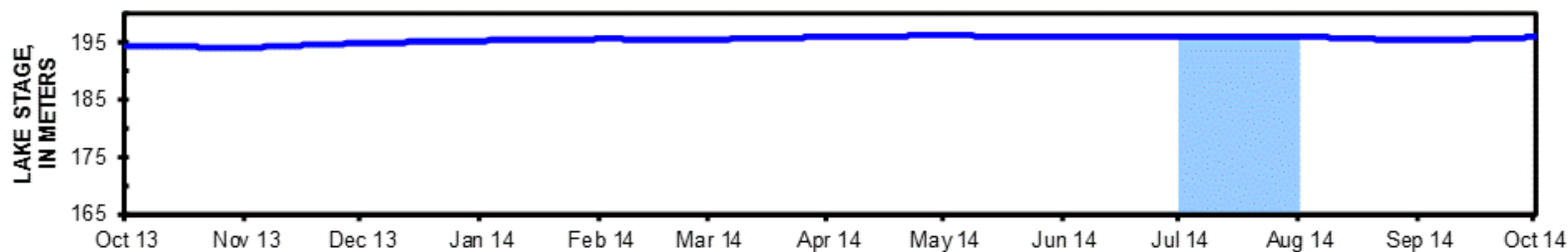
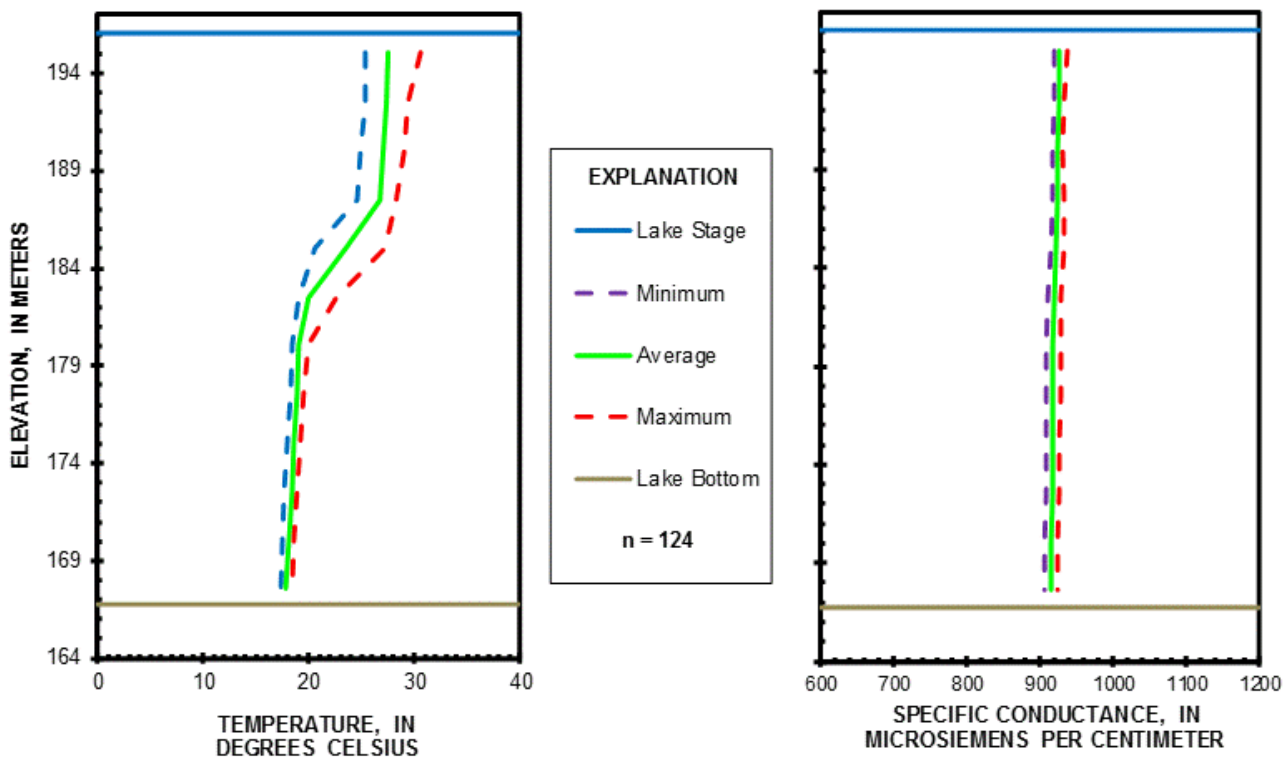
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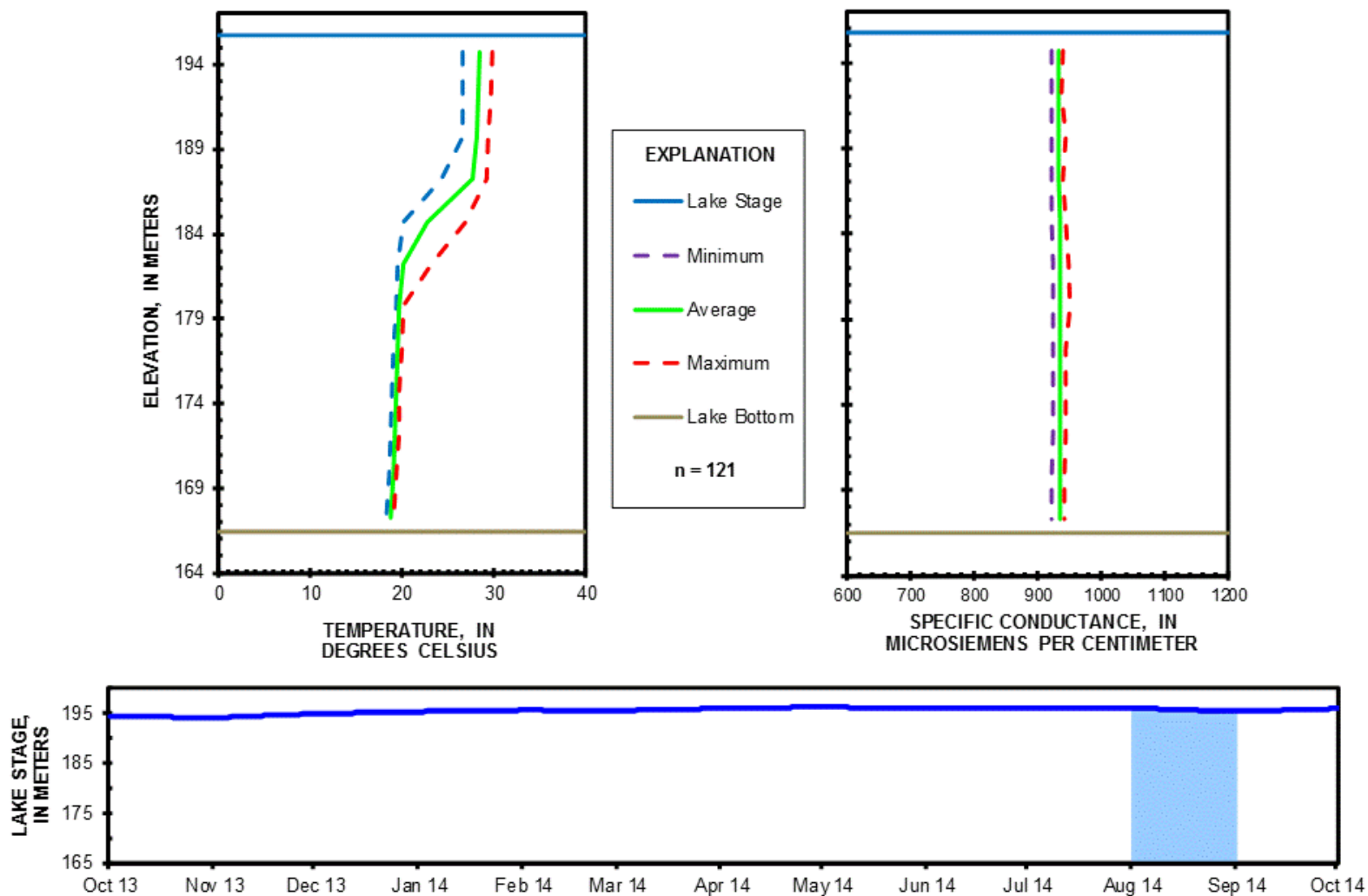
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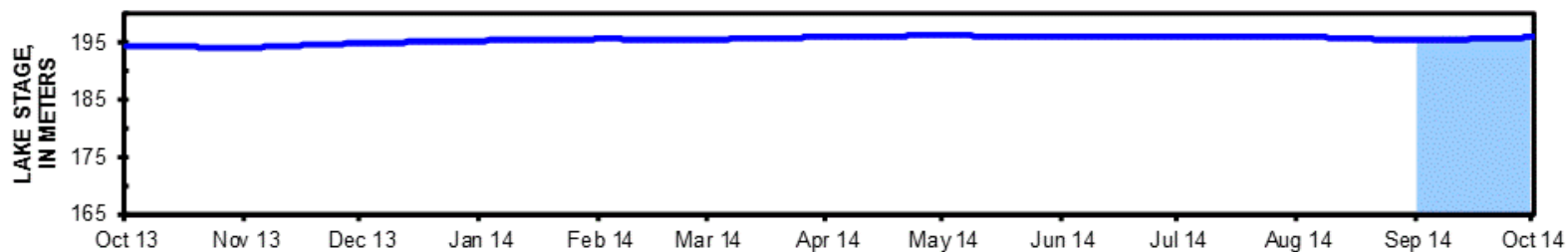
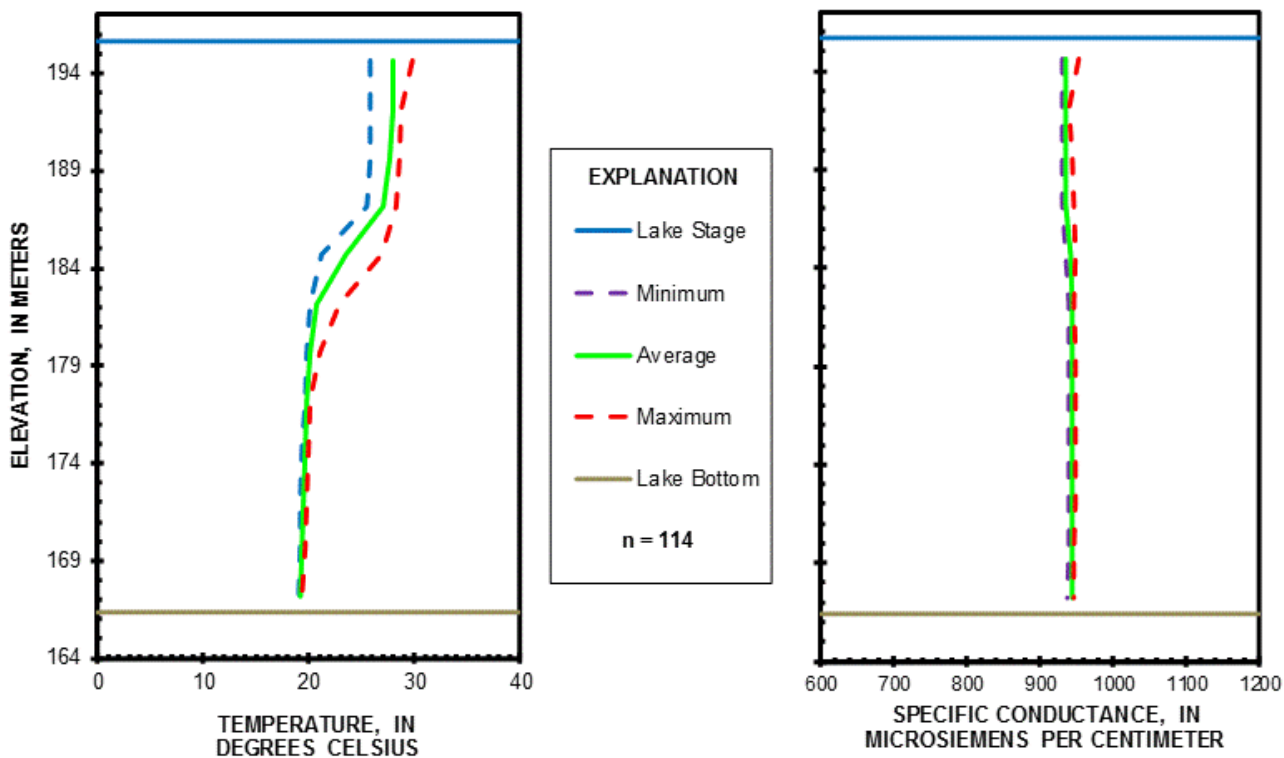
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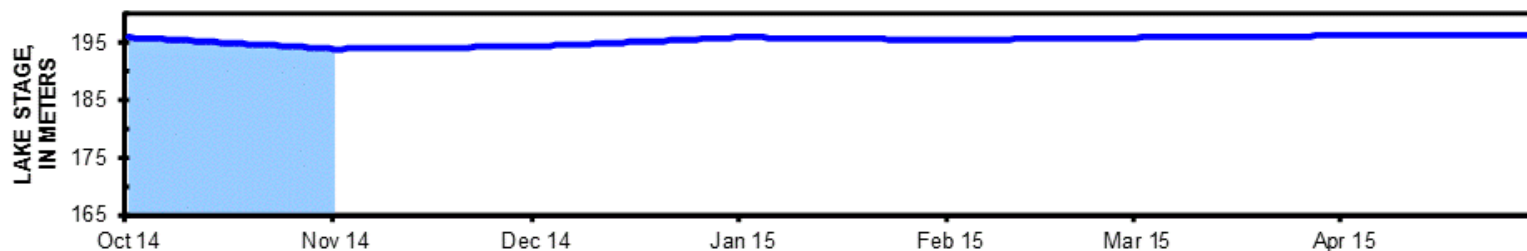
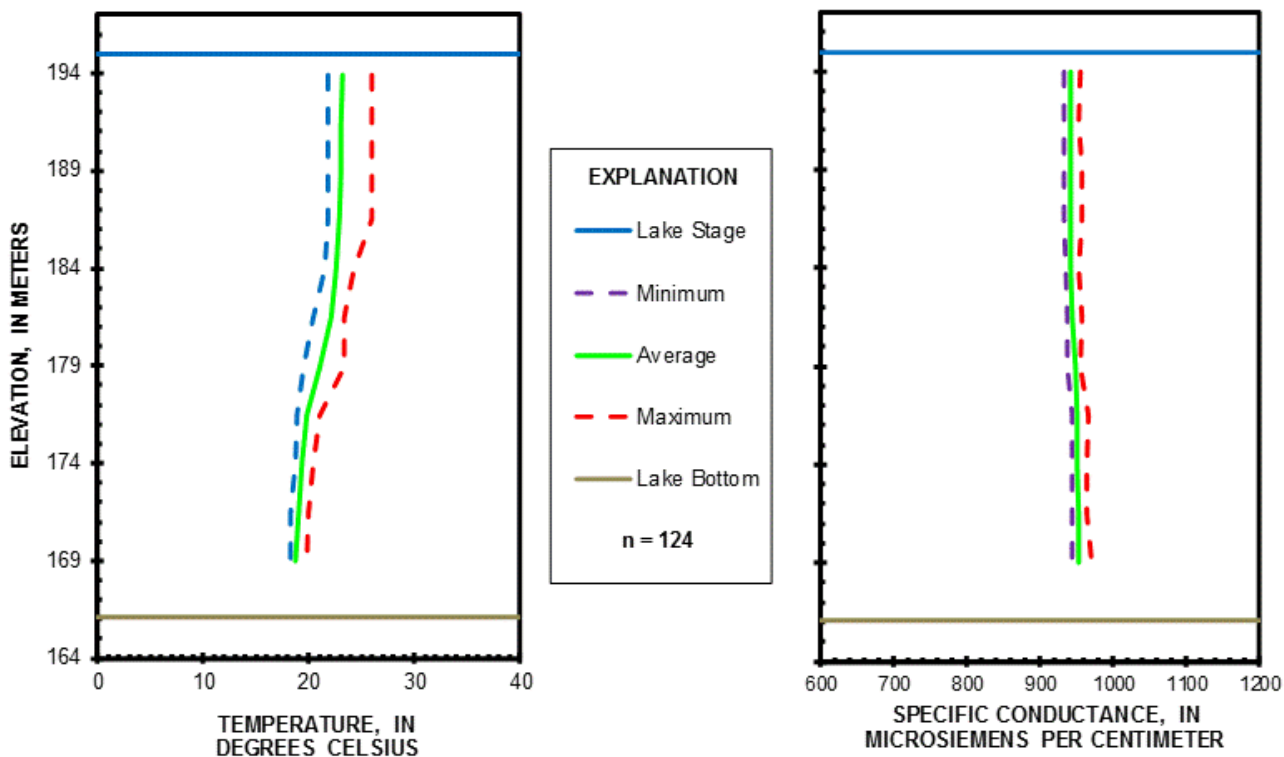
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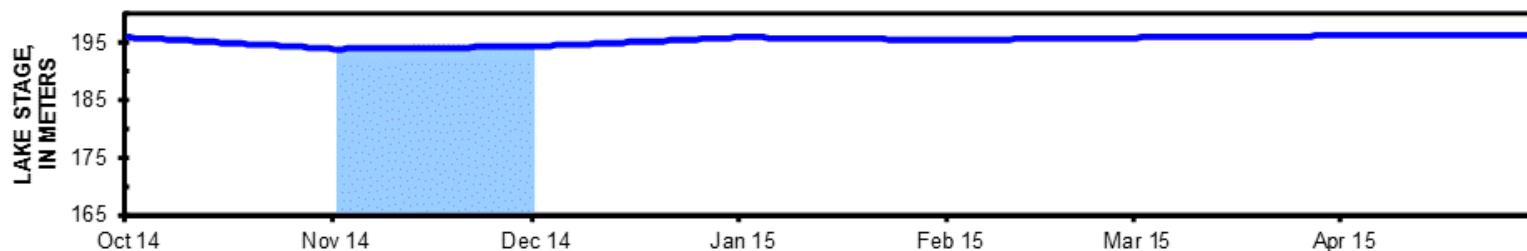
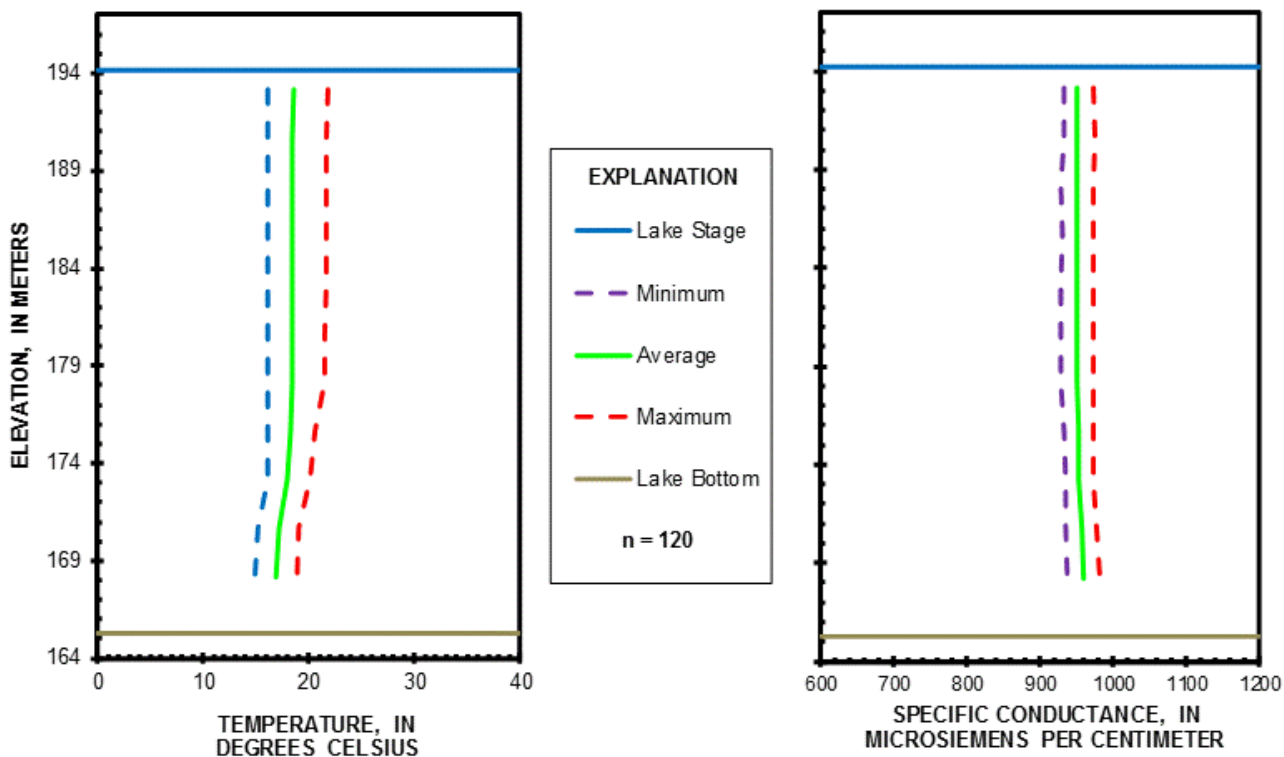
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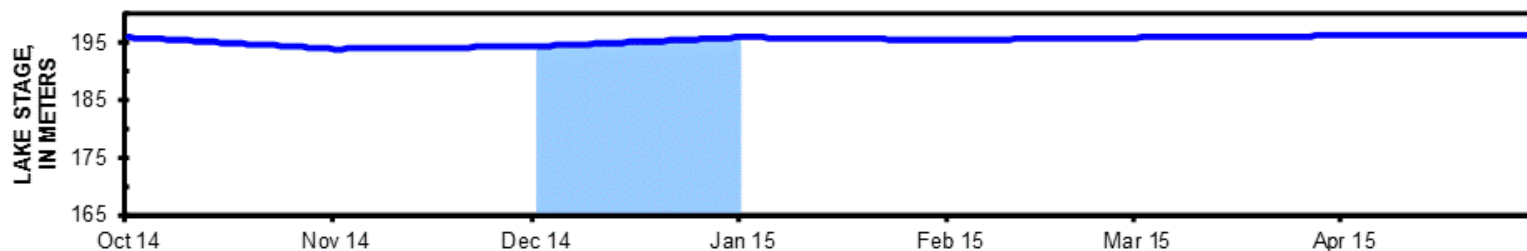
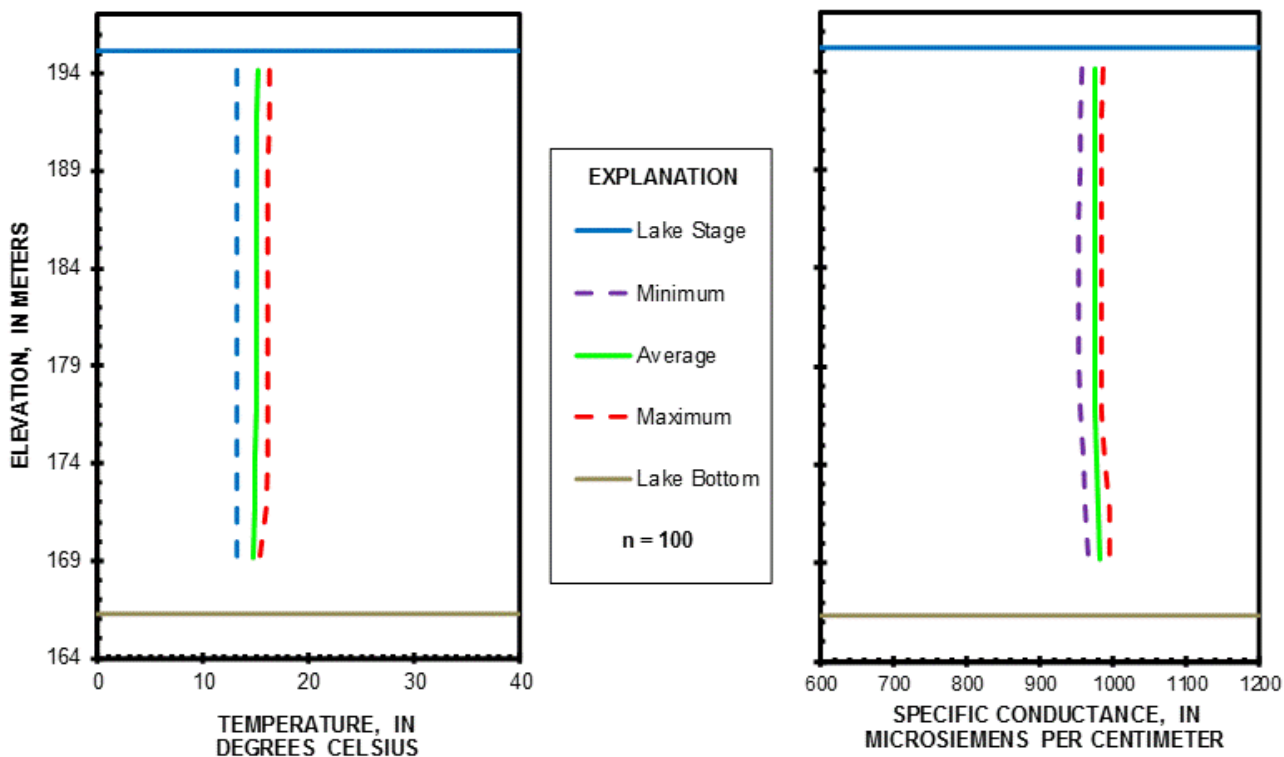
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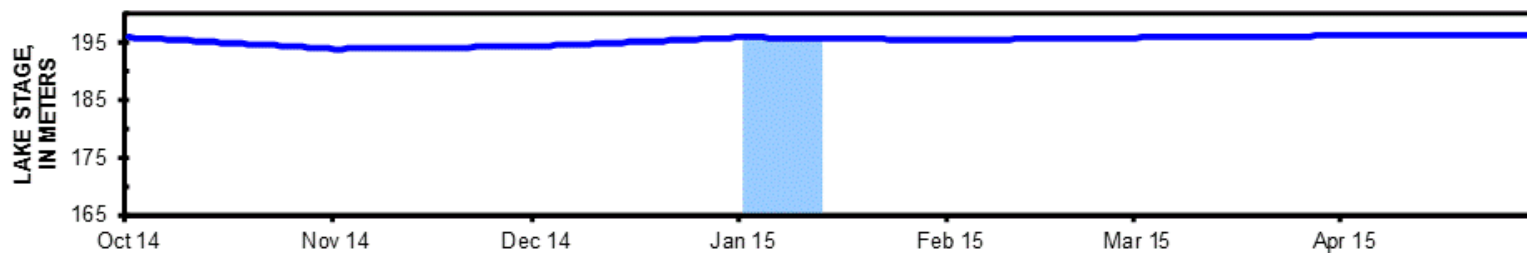
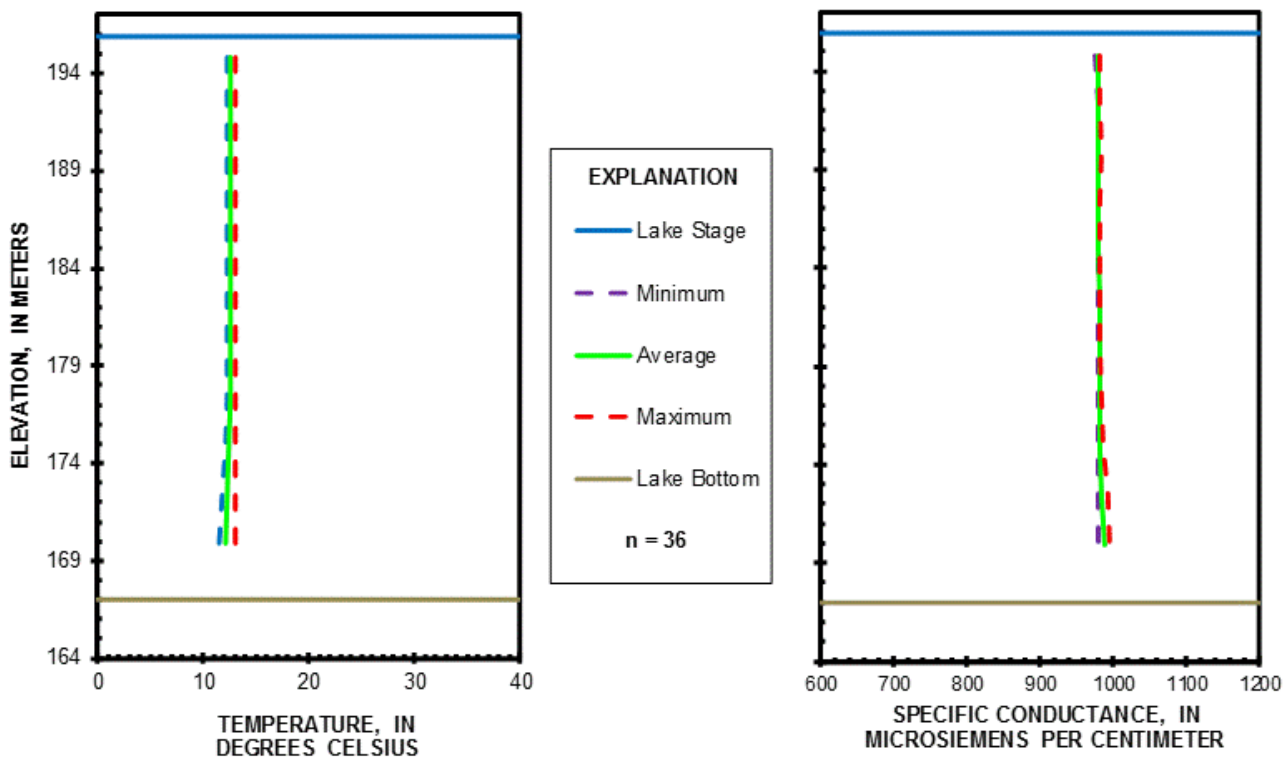
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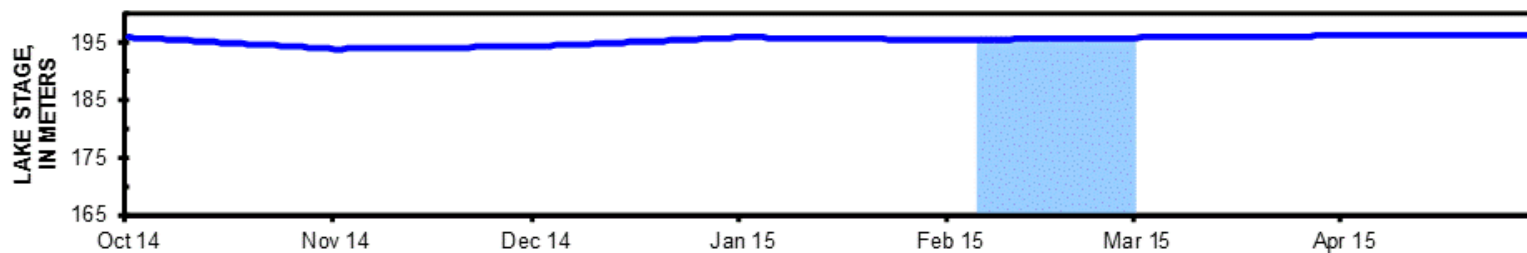
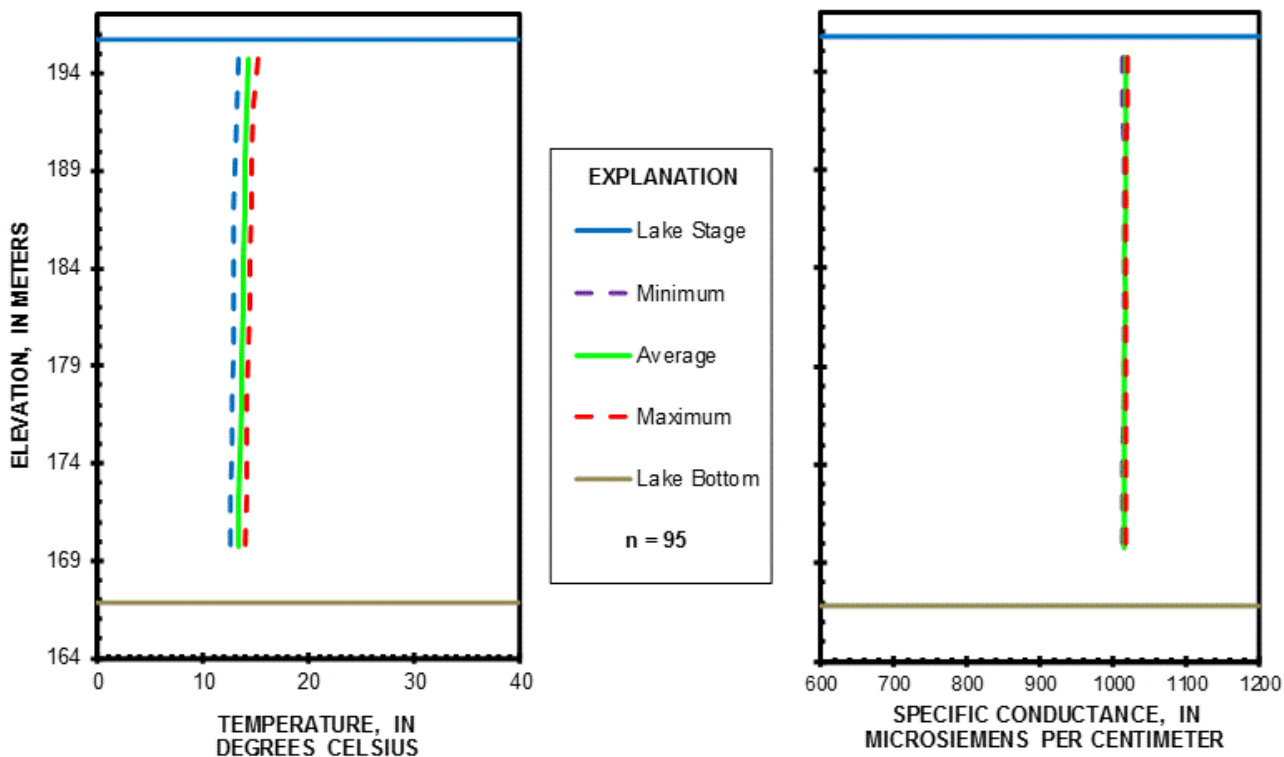
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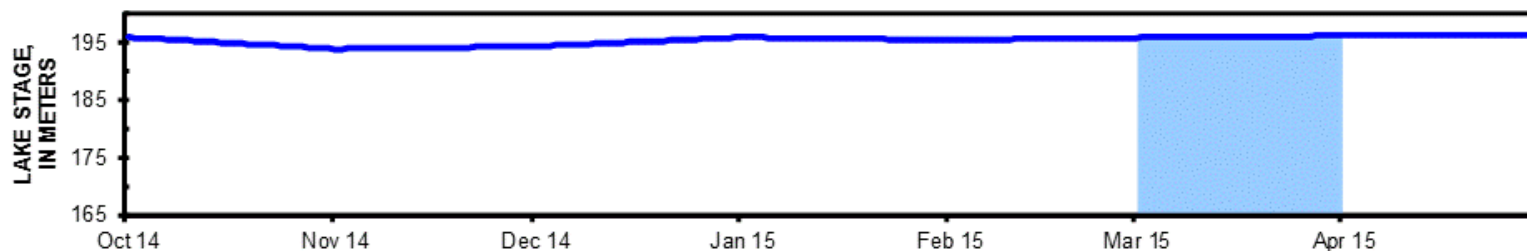
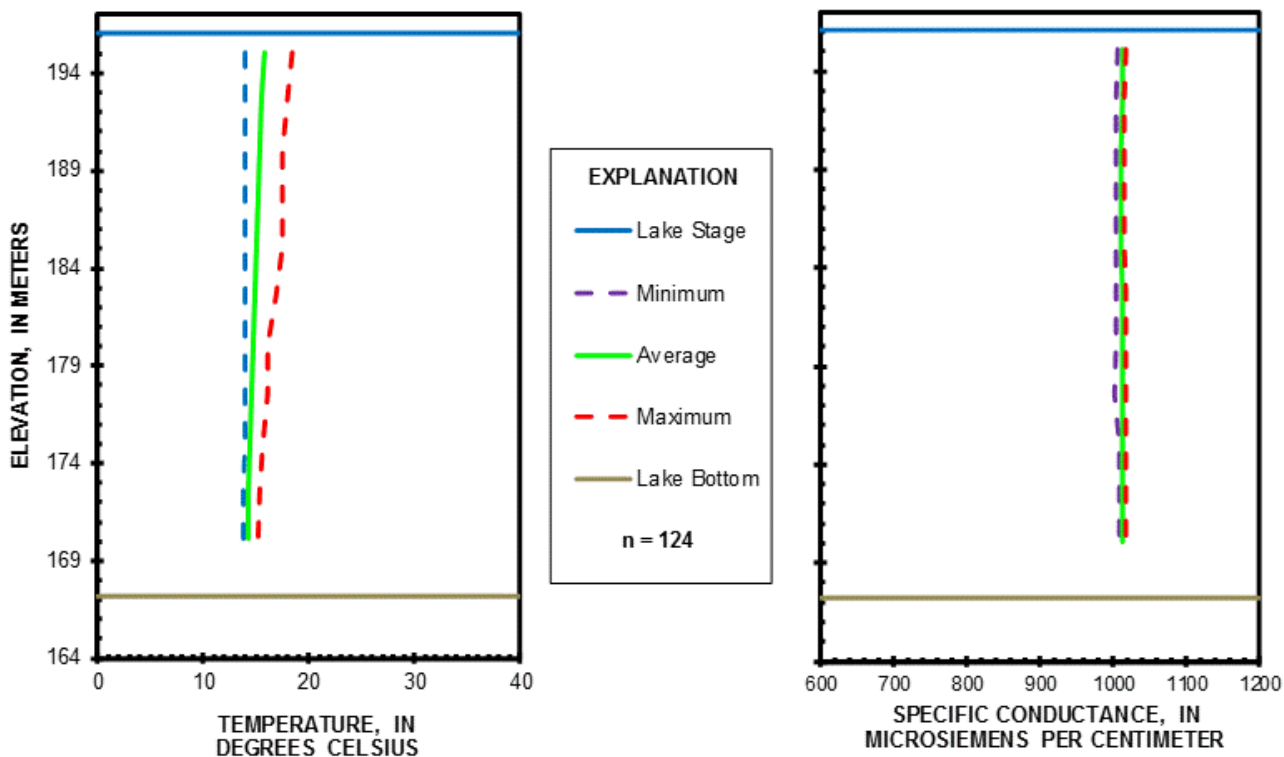
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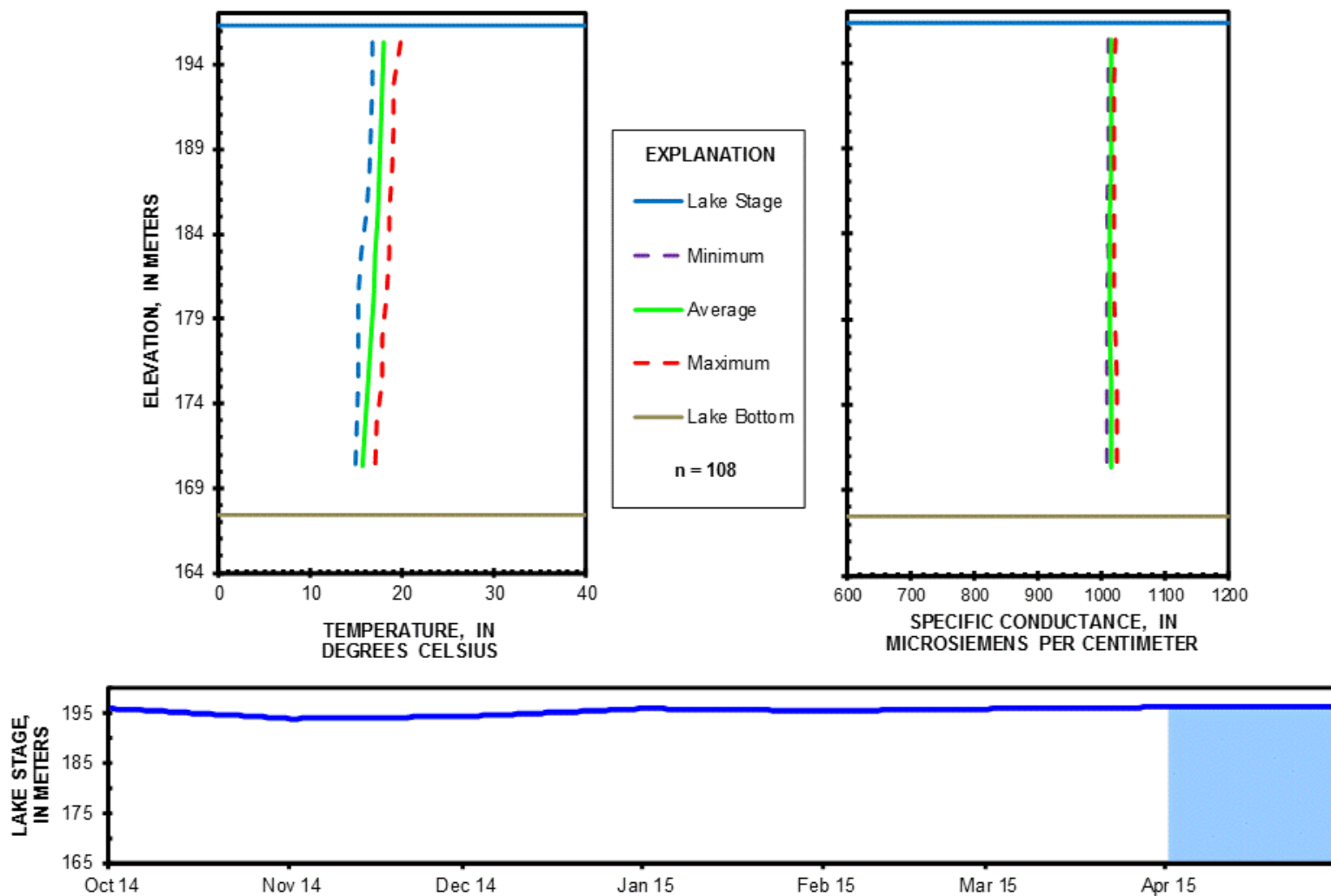
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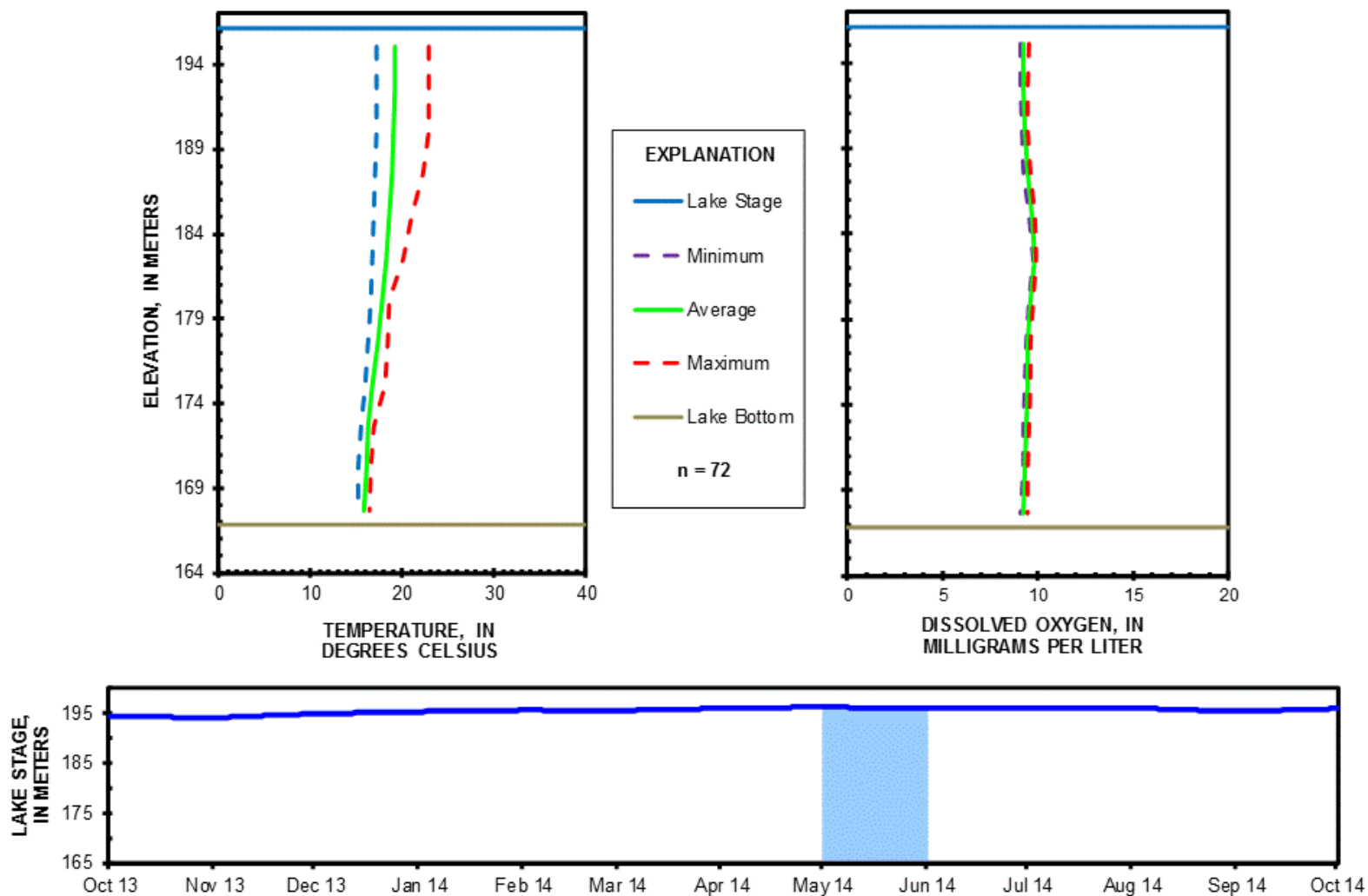
Lake Mohave Monitoring Station

Monthly Average Water Temperature and Dissolved Oxygen by Depth-Dependent Profiles

Note — Lake Stage and Bottom are Approximations

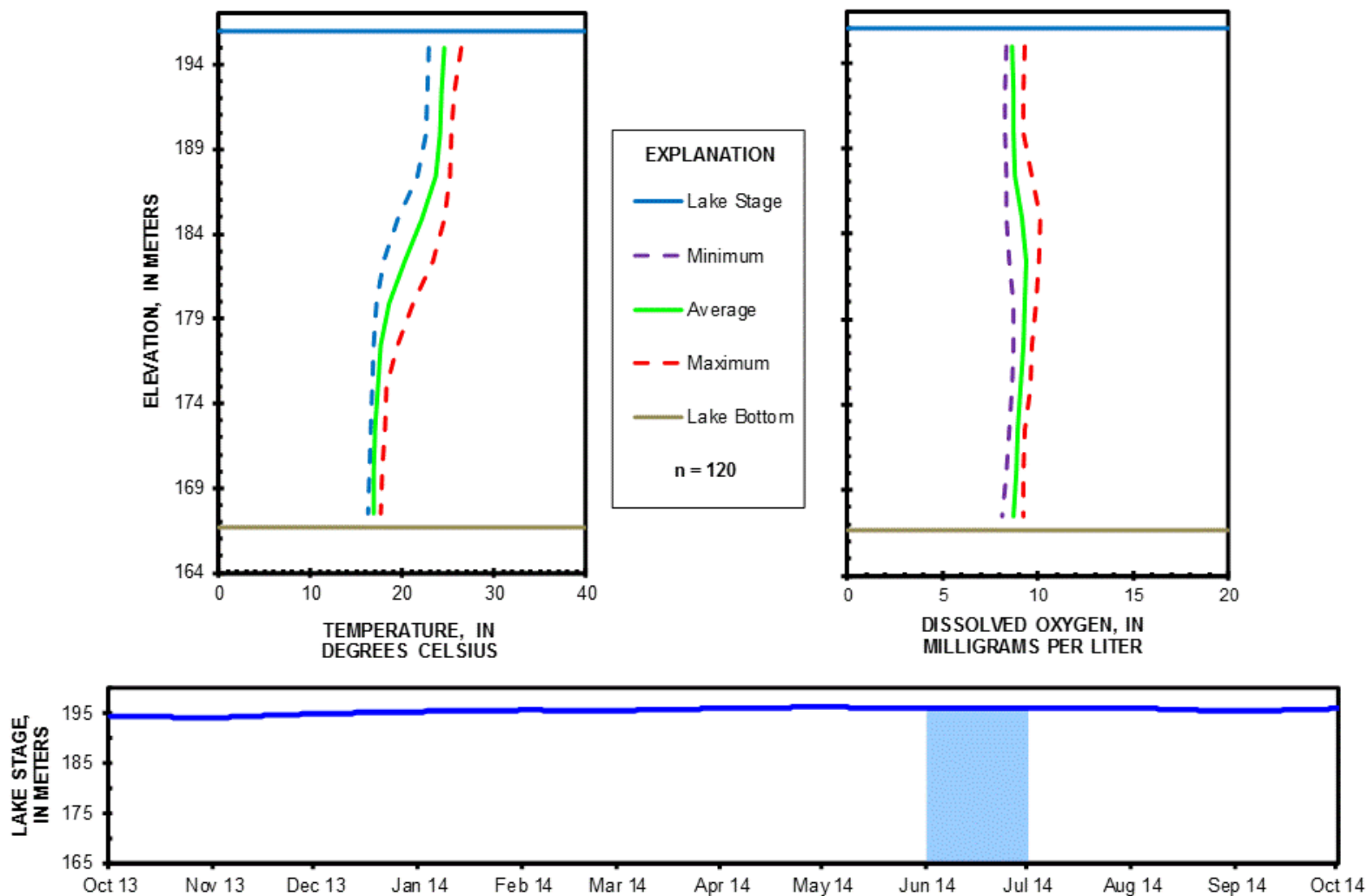
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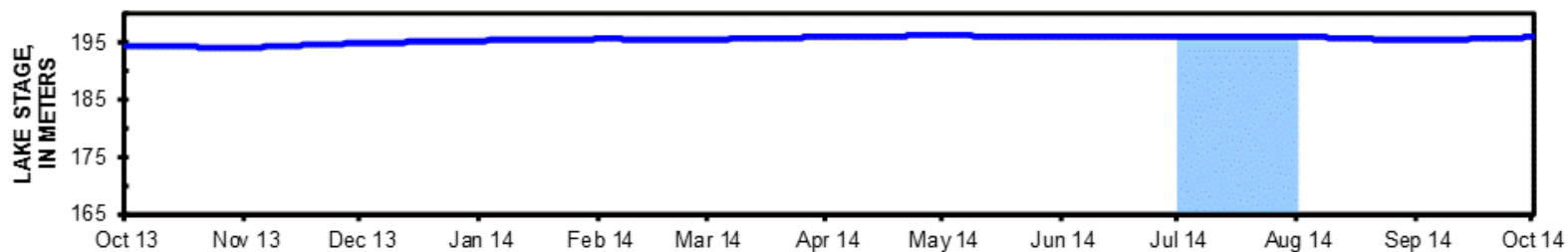
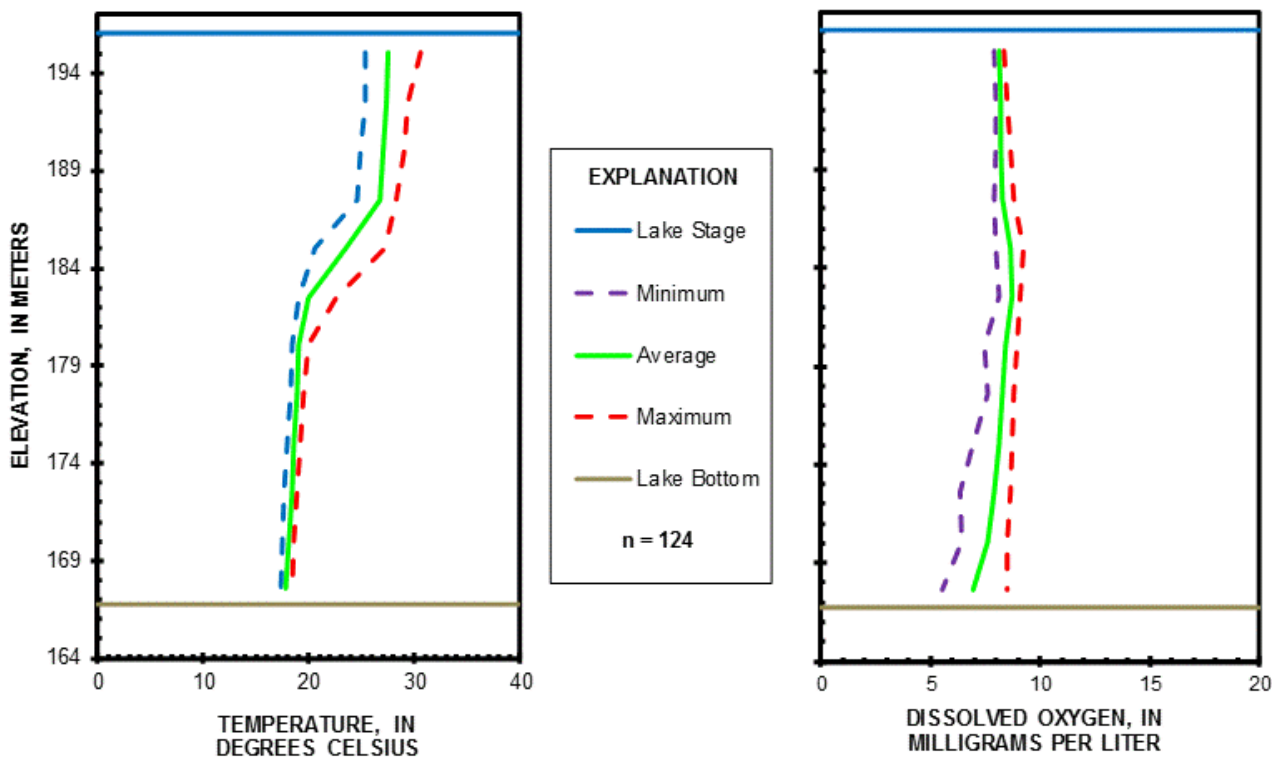
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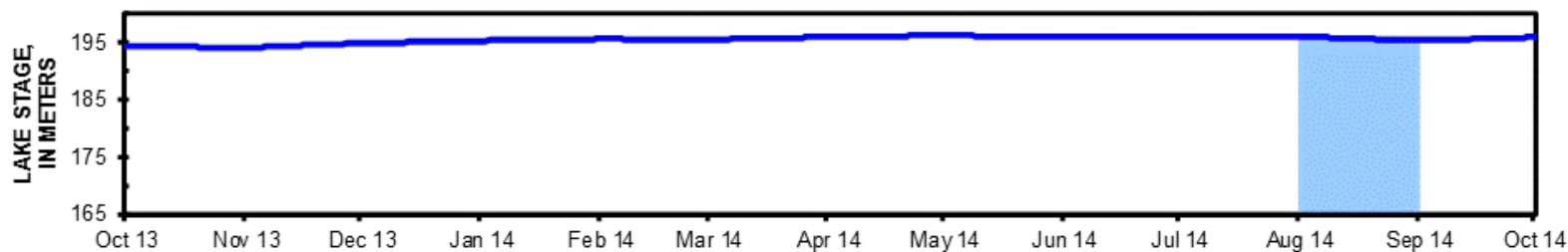
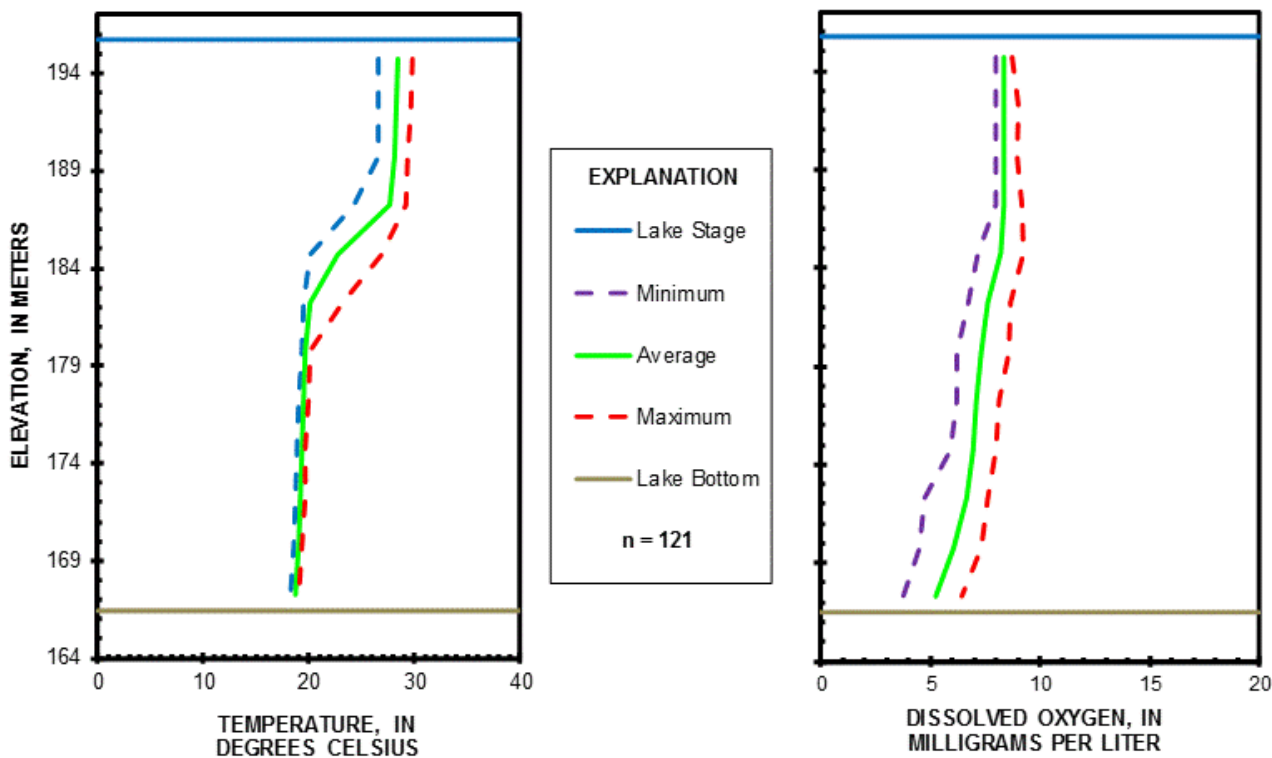
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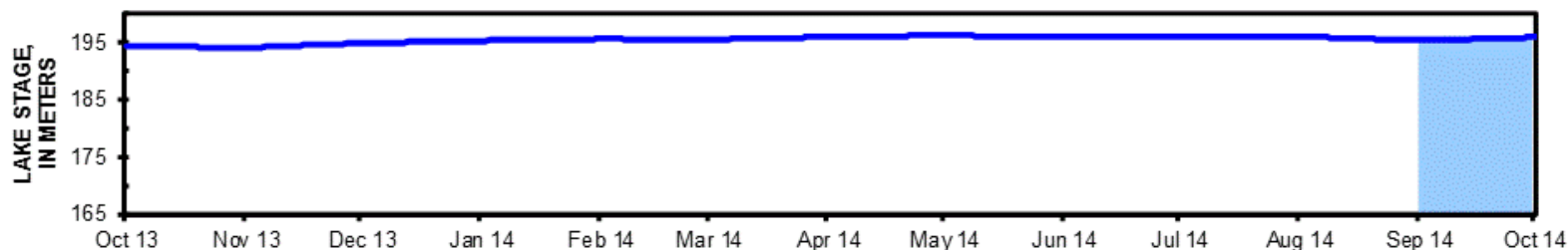
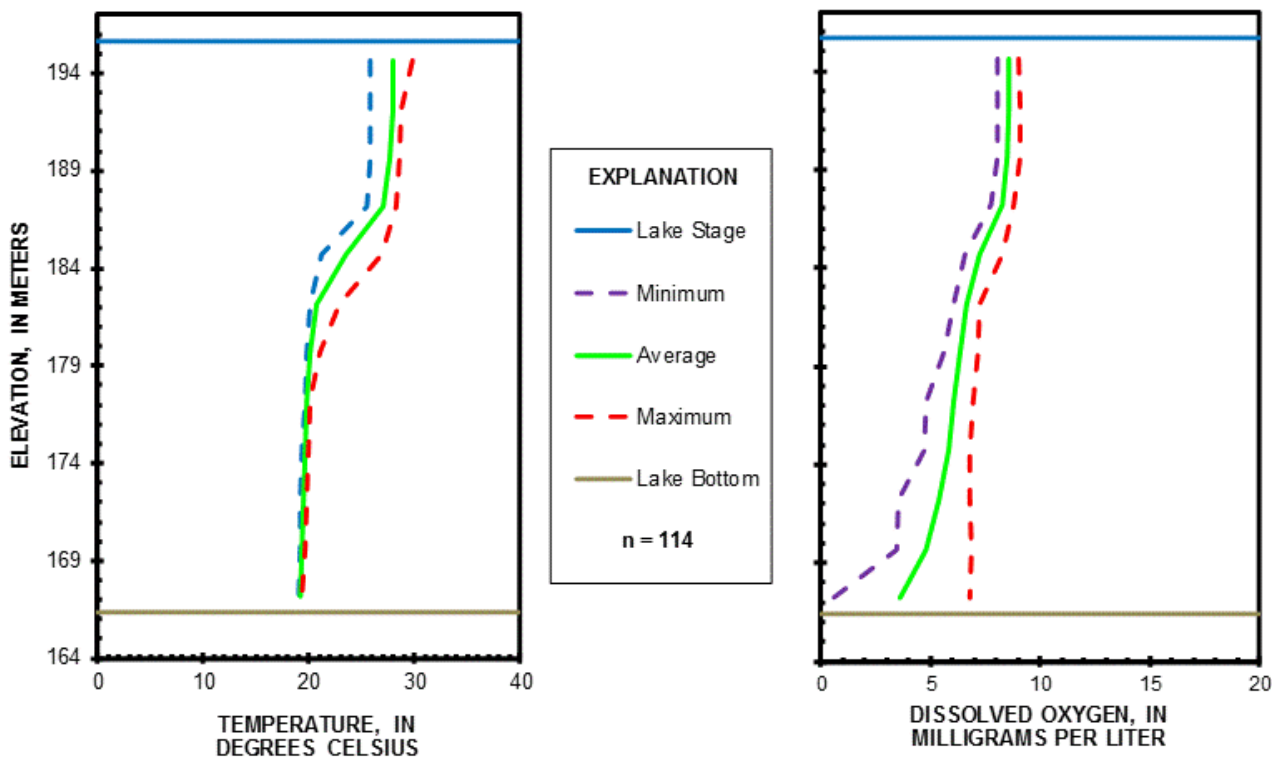
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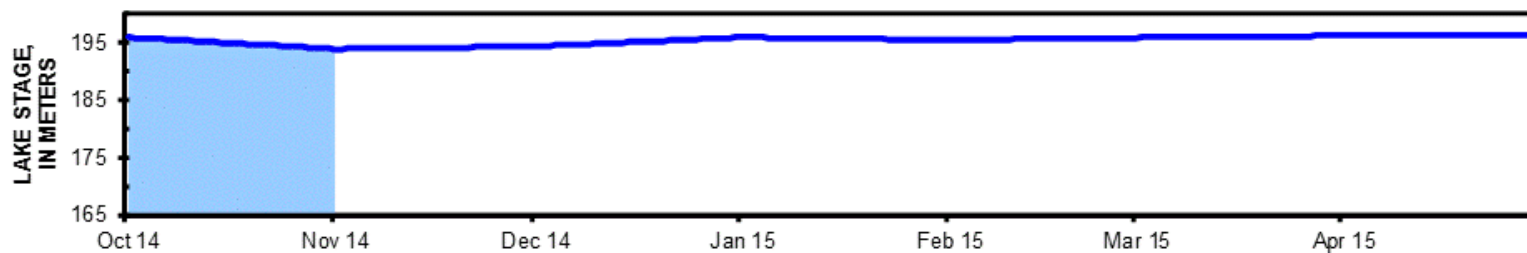
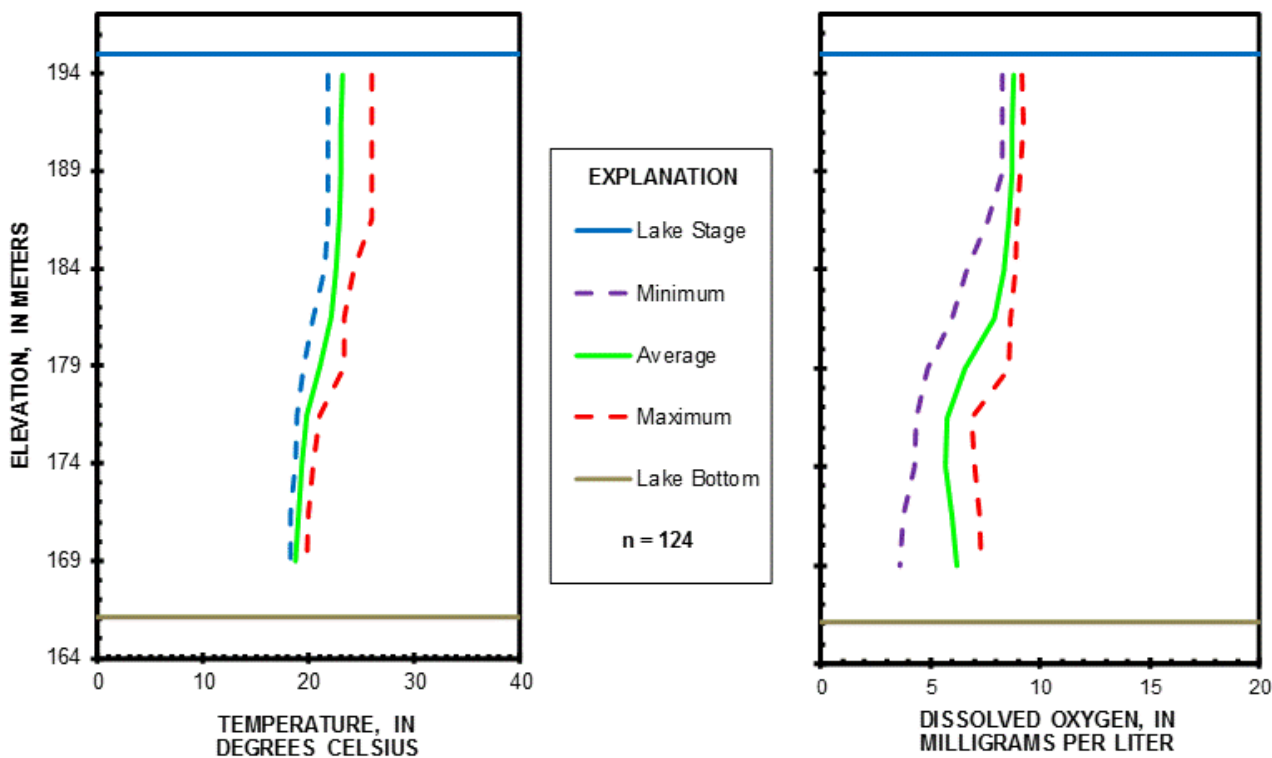
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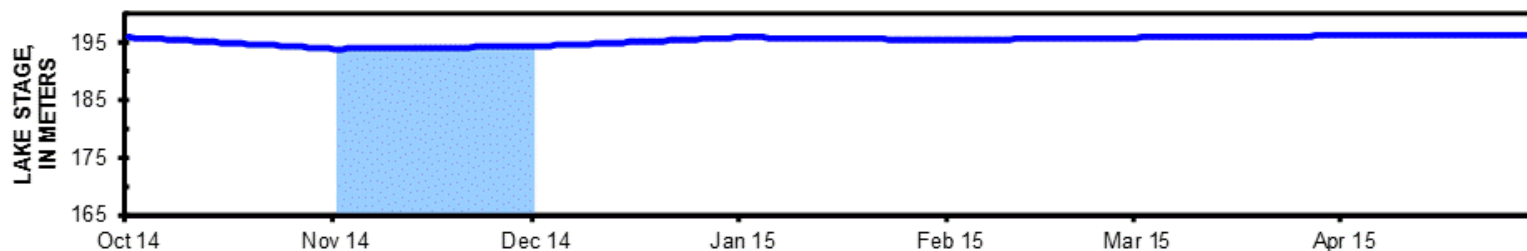
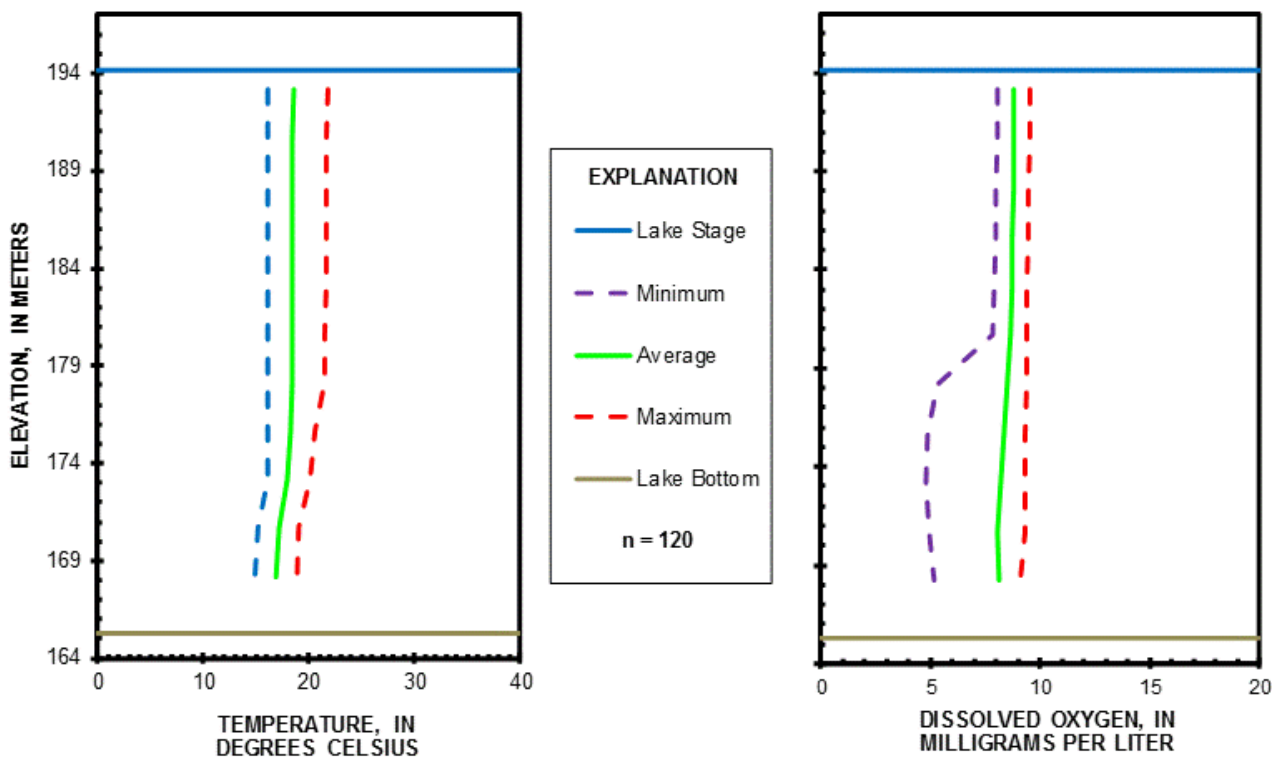
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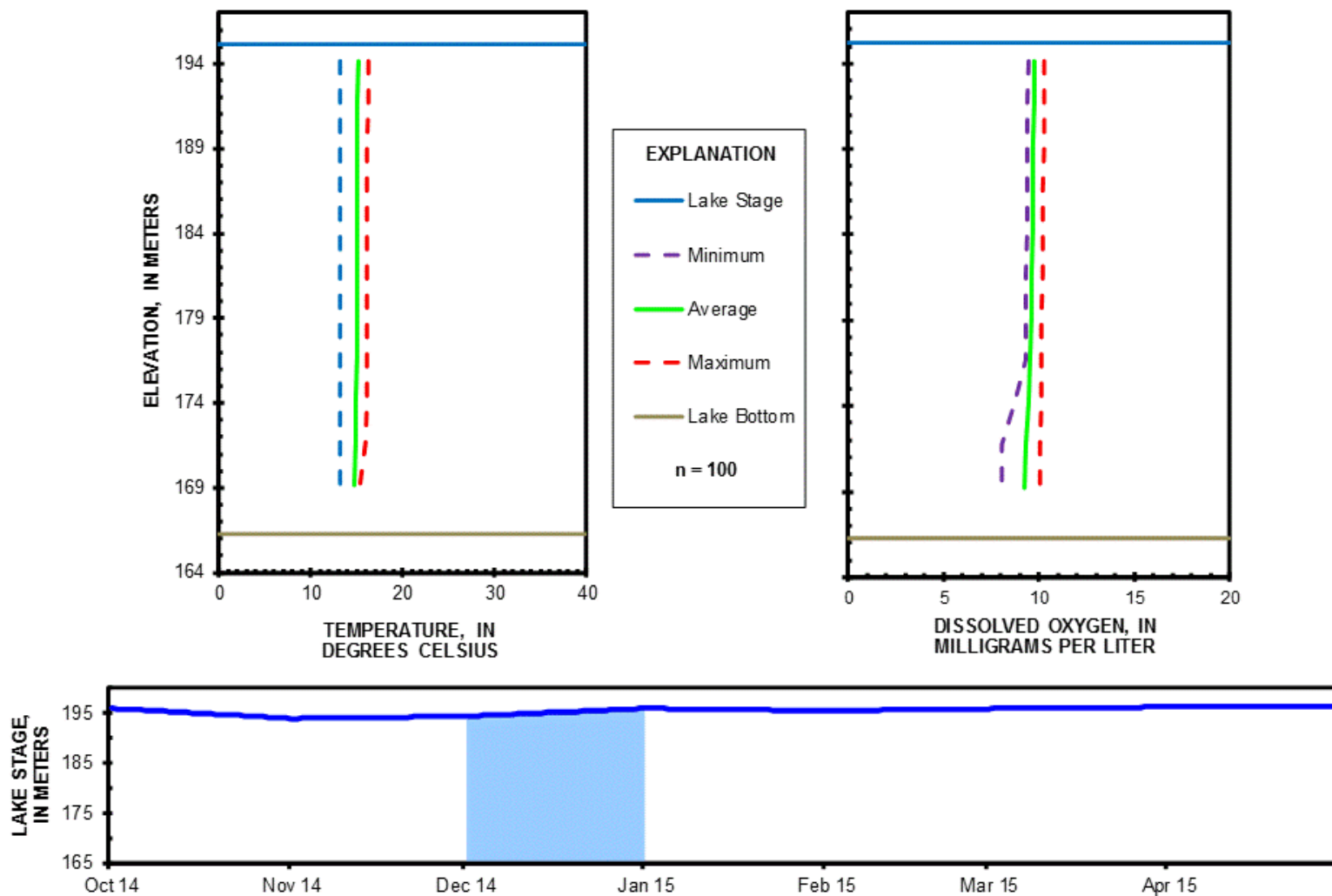
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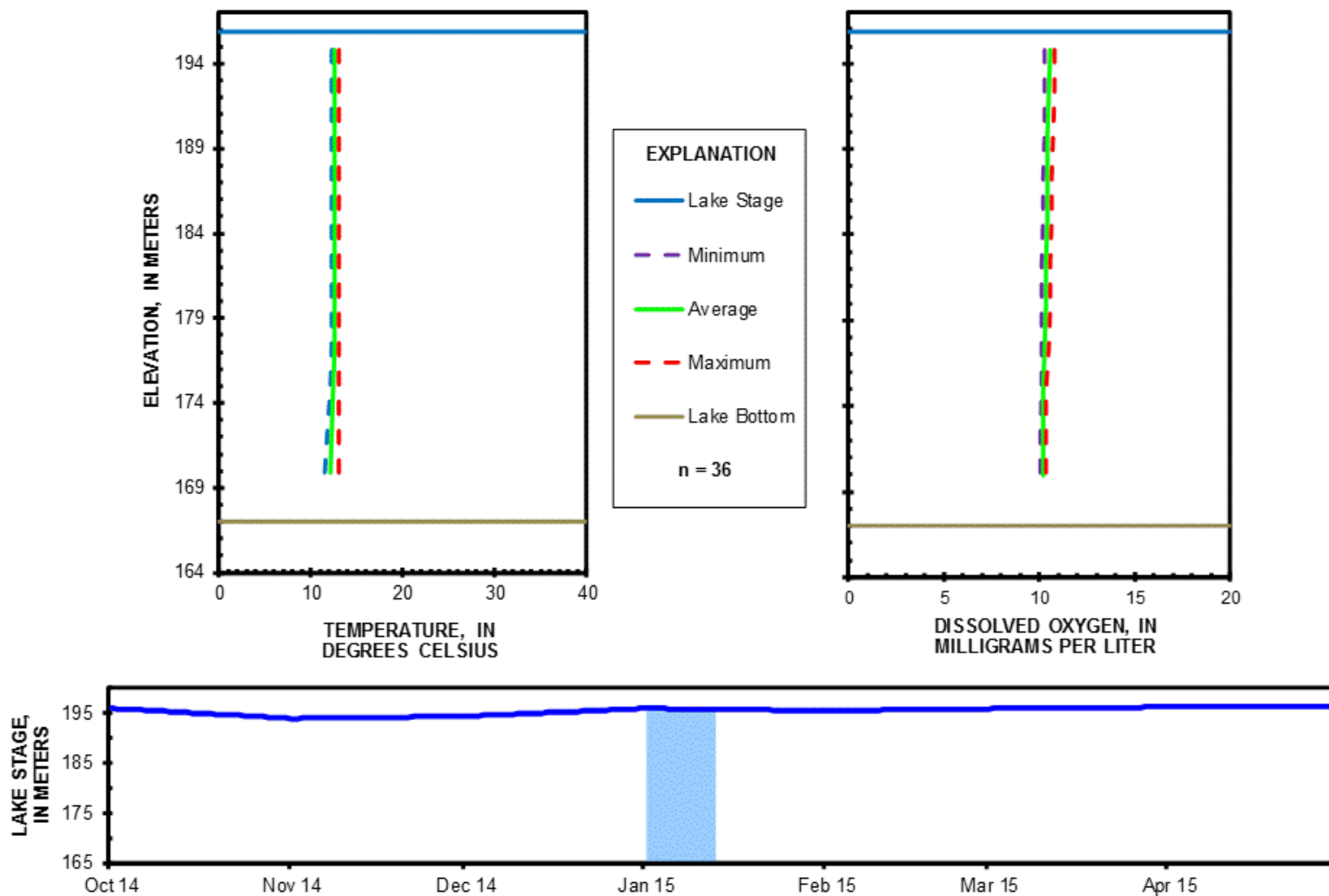
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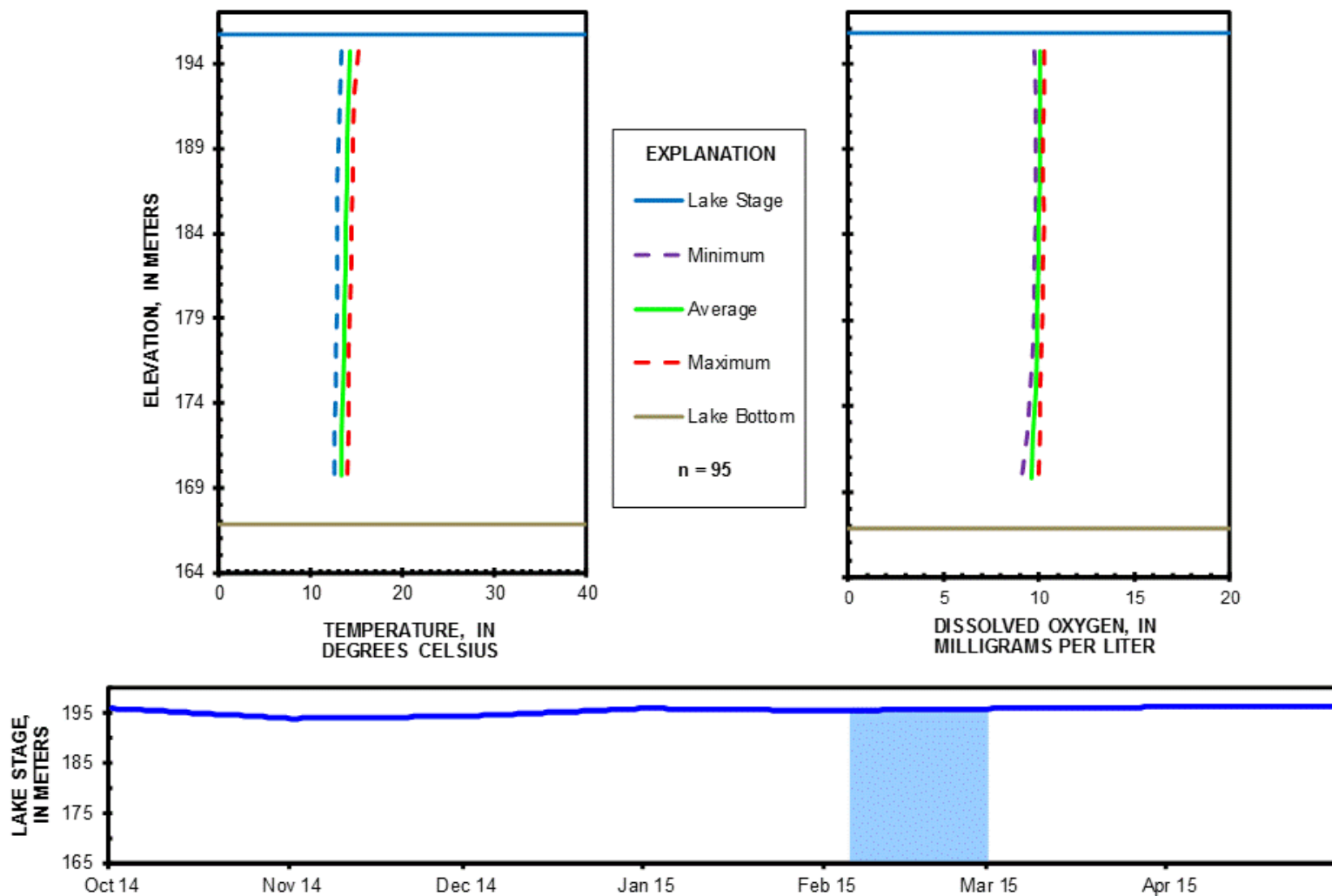
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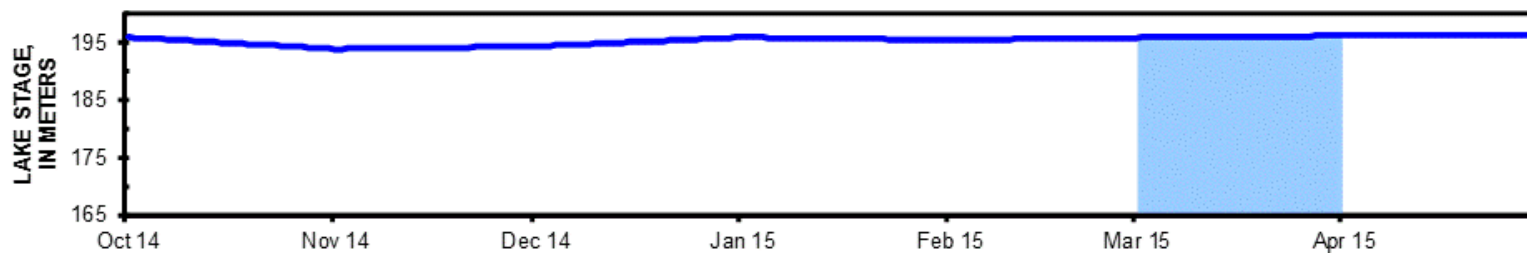
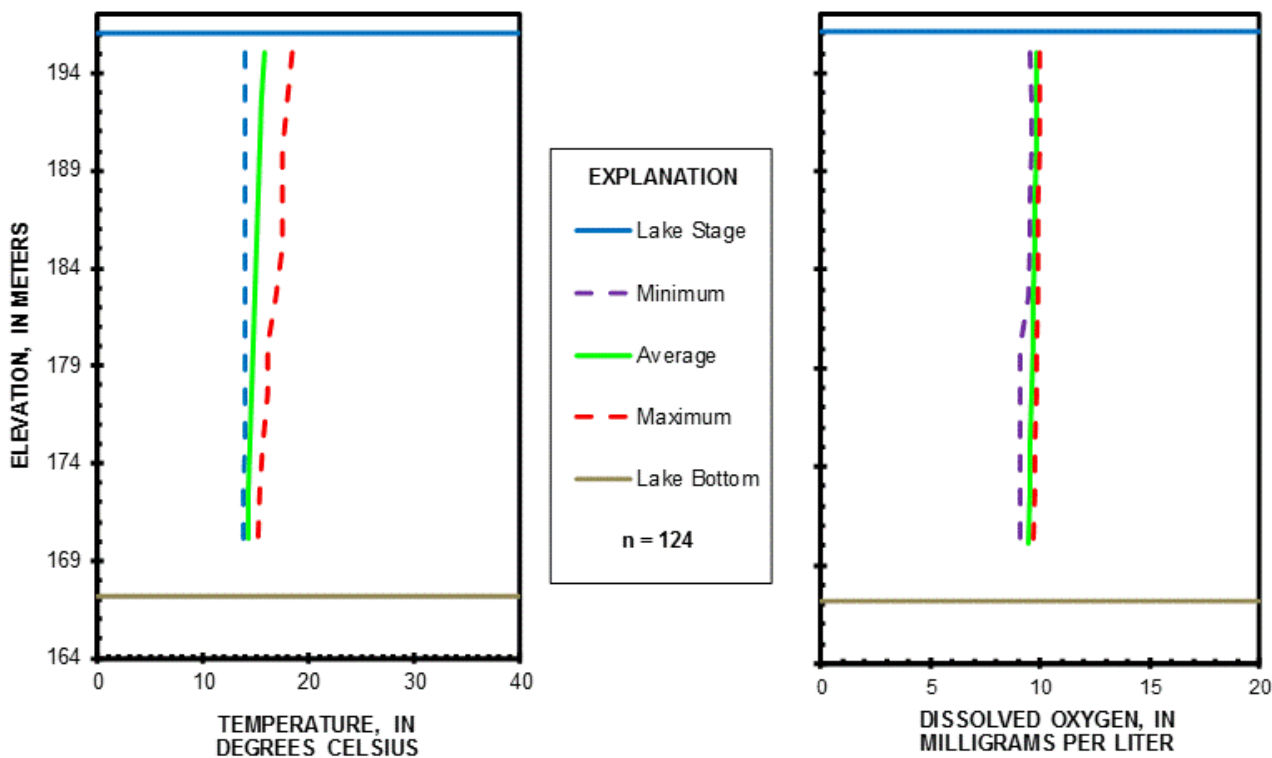
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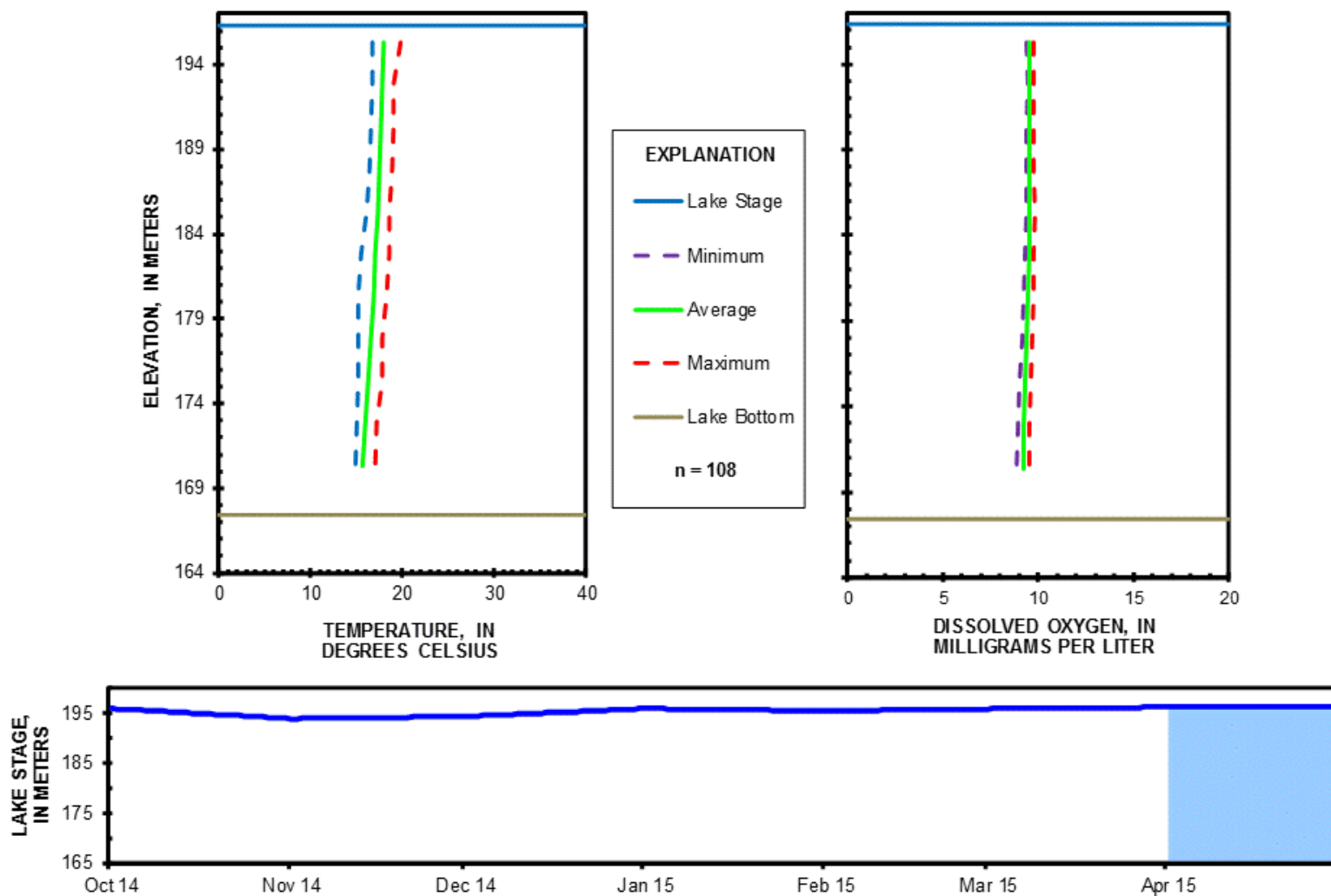
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Provisional Data (Subject to Review/Revision)

USGS Lake Mohave water-quality data collected in cooperation with the following:



SOUTHERN NEVADA WATER AUTHORITY®

Questions?

